

JPRS-WST-86-002

15 JANUARY 1986

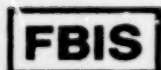
# West Europe Report

SCIENCE AND TECHNOLOGY

TABLES OF CONTENTS

JPRS-WST-85-001, 2 JANUARY 1985-

JPRS-WST-85-034, 30 DECEMBER 1985



FOREIGN BROADCAST INFORMATION SERVICE

#### NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [ ] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

#### PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

2 January 1985

## WEST EUROPE REPORT

### SCIENCE AND TECHNOLOGY

#### CONTENTS

##### AEROSPACE

- FRG Study Looks at Participation in ESA, U.S. Space Station  
(Goetz Wange; FLUGREVUE, Oct 84) ..... 1

##### AUTOMOBILE INDUSTRY

- BBC of Switzerland Develops Electric Car  
(FRANKFURTER ZEITUNG/GLICK DURCH DIE WIRTSCHAFT, 2 Nov 84) 4

- Briefs  
FRG Ceramic Engine Components 6

##### CIVIL AVIATION

- Description of MBB Computerized Design Techniques for A320  
(VDI NACHRICHTEN, 28 Sep 84) ..... 7

- Delivery Times Cause Cashflow Problems for Airbus Industrie  
(INDUSTRIEMAGAZIN, 15 Oct 84) ..... 10

- Norway May Join International Engine Consortium  
(Egil Wettre-Johnsen; AFTENPOSTEN, 13 Nov 84) ..... 14

##### COMPUTERS

- Norsk Data Adds Matra To Joint Venture Partners  
(Martine Orange; VALEURS ACTUELLES, 12 Nov 84) ..... 15

##### FACTORY AUTOMATION

- Europeans Active in Magnetic Bearing Industry  
(MONDO ECONOMICO, 25 Oct 84) ..... 19

- Briefs  
FRG-Norway Research Cooperation 22  
Lasers in Tool Production 22

## MICROELECTRONICS

- French Research on Gallium Arsenide Devices  
(Y. Segui, et al.; REVUE DE PHYSIQUE APPLIQUEE, Apr 84) . 23

## SCIENTIFIC AND INDUSTRIAL POLICY

- UK, FRG, France: R&D in Sensors, Related Fields  
(Thomas Jarne, et al.; UTLANDSRAPPORTER, No 8402, Aug 84) 37
- Research, Technology Parks Spring Up All Over FRG  
(INDUSTRIEMAGAZIN, 15 Sep 84) ..... 60
- French Research Minister on Goals, Progress, Future Plans  
(Hubert Curien Interview; L'UNITE, 19 Oct 84) ..... 65
- Norway Formulates Long-Term Plan for Information Technology  
(Ulf Peter Hellstrom; AFTENPOSTEN, 9 Nov 84) ..... 73

## TECHNOLOGY TRANSFER

- International Symposium Discusses Lab-Industry Tech Transfer  
(VDI NACHRICHTEN, 28 Sep 84) ..... 75

17 January 1985

WEST EUROPE REPORT  
SCIENCE AND TECHNOLOGY

RESEARCH IN ROBOTICS, SENSORS, OPTICS IN FRG

Stockholm UTLANDS RAPPORT in Swedish No 8401, Sep 84 pp 1-53

CONTENTS

FACTORY AUTOMATION

Present, Future Research in Robotics, Sensors, Optics in FRG .....	1
Situation Overview	1
Current Situation	3
Applications of Robotics Technology	4
Research and Development	10
FRG Robotics Market	20
Future Prospects	22

18 January 1985

## WEST EUROPE REPORT

### SCIENCE AND TECHNOLOGY

#### CONTENTS

##### ADVANCED MATERIALS

- FRG Firms Jump Into Market for Auto, Aircraft Ceramics  
(INDUSTRIEMAGAZIN, 15 Oct 84)..... 1
- FRG Radiotelescope Made of Carbon Fiber-Reinforced Plastic  
(PRODUKTION, 30 Aug 84)..... 4

##### AEROSPACE

- Briefs
- Ariane 4 Test Successful..... 5

##### AUTOMOBILE INDUSTRY

- New, Economical, Clean Engine on Swedish Market in Five Years  
(DAGENS NYHETER, 7 Dec 84)..... 6

##### CIVIL AVIATION

- VMF-Stork Bargains To Assemble, Test Engines for New Fokkers  
(DE TELEGRAAF, 24 Oct 84)..... 8
- Airbus A 320 Progress From Aerospatiale  
(Evelyne Boury; REVUE AEROSPATIALE, Dec 84/Jan 85)..... 10

##### COMPUTERS

- Optical Computer Studies at UK's Heriot-Watt University  
(WIRTSCHAFTSWOCHE, 2 Nov 84) .....12

##### FACTORY AUTOMATION

- Dutch Institutes Do Research in Tactile, Visual Robot Sensors  
(G. A. Schwippert, G. K. Steenvoorden; TNO PROJECT,  
Sep 84).....14

Scania, ASEA of Sweden Use Robots for All Production Phases (Peter R. Muehlemann; TECHNISCHE RUNDSCHAU, 18 Sep 84).....	18
ASEA To Open Robot Factory in Japan Next Year (Johan Markvall; DAGENS NYHETER, 23 Nov 84).....	27
<b>MICROELECTRONICS</b>	
Siemens Launches 'Mega Project' With Philips (DER SPIEGEL, 29 Oct 84).....	28
Siemens Opens Ultra-Modern Chip Factory in Austria (DIE PRESSE, 16 Nov 84).....	31
Briefs Philips Profits Up	33
<b>SCIENTIFIC AND INDUSTRIAL POLICY</b>	
Siemens Head on Government Aid to Research (HANDELSBLATT, 5 Nov 84).....	34
FRG Research, Technology Ministry BMFT Lists 1983 Funding (BMFT FOERDERUNGSKATALOG 1983, Mar 1984) .....	38
<b>TECHNOLOGY TRANSFER</b>	
Belgium's Eyskens Discusses Pegard, Bell Affairs With U.S. (Karel Cambien; KNACK, 10 Oct 84).....	85
Finnish Trade Experts Discuss Impact of Trade Restrictions (Matti O. Hosia; SUOMEN KUVALEHTI, 9 Nov 84) .....	89



30 January 1985

## WEST EUROPE REPORT

### SCIENCE AND TECHNOLOGY

#### CONTENTS

##### AEROSPACE

Commercial Space: Europe Should Have Independent Strategy (AARDE & KOSMOS, Nov-Dec 84) .....	1
British Aerospace Studies 'HOTOL' Satellite Launcher (AARDE & KOSMOS, Nov-Dec 84) .....	6

##### AUTOMOBILE INDUSTRY

Van Doorne's Transmission, CVT Maker, Faces Bankruptcy (NRC HANDELSBLAD, 6 Nov 84) .....	9
Reasons for Financial Problems, by Dick Wittenberg Advantages of Van Doorne's CVT, by Wiebe Draijer	
LE FIGARO on Worldwide Struggle for Automobile Markets (LE FIGARO, 10 Dec 84) .....	14
Lack of European Unity, by Daniel Tacet Japanese Strategy Outlook for Future	-

##### BIOTECHNOLOGY

German Support for Biotech Industry Expanding (HANDELSBLATT, 22 Oct 84) .....	23
German Genetic Research Into Plant Disease (CHEMISCHE INDUSTRIE, Nov 84) .....	28
Austrian Developments in Biochemistry, Biotech (Hans G. Oetzbrugger; DIE PRESSE, 21 Nov 84) .....	29
France's Faibis Calls for Further Initiatives (AFP SCIENCES, 11 Oct 84) .....	31



Elf-Sanofi Emerging French Leader in Biotech (LE FIGARO, 16 Nov 84) .....	33
French Propose New Financial Yardstick for Industry (Ghislain Garczynski; BIOFUTUR, Nov 84) .....	35
COMPUTERS	
Researchers, Projects at French Intelligent Machine Center (Xavier Dalloz; MINIS ET MICROS, 24 Sep 84) .....	43
French Firm Develops 2D, 3D Computer Vision System (Rosalie Hurtado; MINIS ET MICROS, 24 Sep 84) .....	47
MICROELECTRONICS	
Siemens' CAD System Designs VLSI Circuits (Berthold Koch, Martin Nett; DATA REPORT, Sep 84) .....	53
Three Netherlands Universities Propose VLSI Superchip Plant (TNO PROJECT, Oct 84) .....	56
Netherlands Personnel Shortage Threatens 'Megaproject' (NRC HANDELSBLAD, 12 Dec 84) .....	59
TECHNOLOGY TRANSFER	
French Commentary on Soviet Industrial Espionage (Christian David, Jean Gloaguen; LE NOUVEL ECONOMISTE, 3 Dec 84) .....	61

5 February 1985

## WEST EUROPE REPORT SCIENCE AND TECHNOLOGY

### CONTENTS

#### ADVANCED MATERIALS

- Overview of Major Swedish Institutions in Polymer Research  
(Per Rydgren; PLASTFORUM SCANDINAVIA, No 10, 1984)..... 1
- FRG: Increased Ceramics Research at Max Planck Institute  
(HANDELSBLATT, 14 Nov 84)..... 8

#### AUTOMOBILE INDUSTRY

- VW's New Experimental Car Described  
(ATA-INGEGNERIA AUTOMOTORISTICA, Aug-Sep 84)..... 9

#### BIOTECHNOLOGY

- Italy Surveys Sector, Issues Report  
(BIOFUTUR, Sep 84)..... 11
- France Organizes Second International Exposition  
(LA LETTRE DES BIOTECHNOLOGIES, Nov 84)..... 13
- France's INRA Chief Suggests Industrial Strategy  
(Pierre Feillet; BIOFUTUR, Nov 84)..... 15
- Industry-University Biomedical Research Laboratory  
(L'UNITA, 4 Dec 84)..... 24
- Briefs
- |  |    |
|--|----|
| Spanish Center                         | 26 |
| Canadian Strategy                      | 26 |
| Israel's INTER YEDA Markets Interferon | 26 |

## CIVIL AVIATION

- MBB's Measures To Make Production More Efficient Described  
(D. F. Hertel; DIE WELT, 17 Nov 84)..... 28

## COMPUTERS

- Dataflow Machine Research Presented at French Conference  
(MINIS ET MICROS, 22 Oct 84)..... 30
- French Work Toward 'Flexible Software Workshops'  
(LE NOUVEL AUTOMATISME, Oct 84)..... 32

## FACTORY AUTOMATION

- French Factory Has 'World First' in FMS for Steel Sheet  
(Pierre Iticsohn; INDUSTRIES & TECHNIQUES, 1 Oct 84)..... 38
- Hamai of Japan Signs Machine Tool Contract With French Firm  
(Patrick Piernaz; L'USINE NOUVELLE, 11 Oct 84)..... 42
- 'Novel Concept' in Design of ASEA's New Assembly Robot  
(Michel Defaux; L'USINE NOUVELLE, 11 Oct 84)..... 44

## METALLURGICAL INDUSTRIES

- French Firm Has 'Most Advanced' Continuous-Casting Machine  
(Jean Roume; L'USINE NOUVELLE, 18 Oct 84)..... 46

## MICROELECTRONICS

- Siemens, Philips 'Megaproject' To Yield Superchip in 5 Years  
(NRC HANDELSBLAD, 7 Nov 84)..... 51
- Philips To Invest 5 Billion Guilders  
Strategic Importance of IC's to Philips, by Dick Wittenberg  
Governments Set Conditions for Financing, by Paul Frieese  
Technical Challenges of Project, by Wubbo Tempel
- Renault of France To Make Liquid Crystal Displays  
(AFP SCIENCES, 18 Oct 84)..... 59
- Berlin: New Siemens Plant for Fiber-Optics Components  
(HANDELSBLATT, 9/10 Nov 84)..... 60
- Briefs  
CNET Liquid Crystal Research..... 61

## SCIENCE AND INDUSTRIAL POLICY

Budget for Sweden's Directorate for Technology Development (TEKNIK I TIDEN, No 4, 1984).....	62
---	----

## TECHNOLOGY TRANSFER

FRG, Finland Cooperation in Mining, Metallurgy (Joachim Krueger; HANDELSBLATT, 9/10 Nov 84).....	64
---	----

FRG Economics Institute Criticizes Cocom List (FRANKFURTER ALLGEMEINE ZEITUNG, 15 Nov 84).....	66
---	----

11 February 1985

## WEST EUROPE REPORT

### SCIENCE AND TECHNOLOGY

#### CONTENTS

##### ADVANCED MATERIALS

- SEP of France Manufactures Its First Silicon Carbide Fibers  
(Alain Perez; INDUSTRIES & TECHNIQUES, 1 Oct 84) ..... 1

##### AEROSPACE

- Decision of FRG Participation in 'Columbus' by December  
(FRANKFURTER ALLGEMEINE ZEITUNG, 15 Nov 84) ..... 3
- FRG, Italy, France, Others Line Up as Ariane-5 Participants  
(AFP SCIENCES, 24 Oct 84) ..... 5
- Briefs  
French Want Second Ride ..... 6

##### AUTOMOTIVE INDUSTRY

- Fiat Introduces 1000-CC Engine  
(ATA-INGEGNERIA AUTOMOTORISTICA, Oct 84) ..... 7

##### BIOTECHNOLOGY

- Worldwide Status of Plant Genetic Engineering  
(Marc Van Montague Interview; BIOFUTUR, Nov 84) ..... 20

##### CIVIL AVIATION

- Discussion of Airbus Production, Sales, Line Expansion  
(Pierre Kerlouegan; LE FIGARO, 24 Dec 84) ..... 30
- MBB Spokesman on Increasing Airbus Market Share  
(Peter Jentsch; DIE WELT, 9 Nov 84) ..... 33
- FRG Says Deutsche Airbus Should Lower Production Costs  
(WIRTSCHAFTSWOCHE, 2 Nov 84) ..... 34
- Briefs  
Airbus Fatigue Tests - a - ..... 37

## COMPUTERS

- 'Esop' Expert System Model Described  
(Pierre Jouvelot, Daniel Le Conte des Floris; MINIS  
ET MICROS, 8 Oct 84) ..... 38
- Bull Seeks Continuity After Restructuring  
(Lucien de Salagnac; INTER ELECTRONIQUE, 1 Oct 84) ..... 45

## FACTORY AUTOMATION

- Trumpf of FRG Expands Production Base by Automating  
(Antoine Schoen; L'USINE NOUVELLE, 3 Jan 85) ..... 47

## MICROELECTRONICS

- France's IC Strategy Takes Shape With Thomson, CNET Accord  
(Claude Amalric; L'USINE NOUVELLE, 3 Jan 85) ..... 49
- CAD/CAM Systems for Printed Circuit Design, Manufacture  
(Catherine Gross; ELECTRONIQUE INDUSTRIELLE, 15 Oct 84) . 51
- MATRA Harris To Focus R&D on Microprocessors  
(J. P. Della Mussia; ELECTRONIQUE ACTUALITES, 26 Oct 84). 55
- Bull of France To Build Factory in Spain  
(ELECTRONIQUE ACTUALITES, 19 Oct 84) ..... 58
- EEC, Japan Secret Meeting on Standardization, Cooperation  
(Martine Leventer; LE POINT, 15 Oct 84) ..... 59

## SCIENTIFIC AND INDUSTRIAL POLICY

- Industrial Modernization Funds Aid 450 Firms in France  
(INDUSTRIES & TECHNIQUES, 1 Oct 84) ..... 63
- FRG Venture Capital Company Restructured Due to Losses  
(WIRTSCHAFTSWOCHE, 9 Nov 84) ..... 66
- FRG To Expand Program To Aid New High-Tech Firms  
(VDI NACHRICHTEN, 5 Oct 84) ..... 71
- Plans Outlined  
Further Details, by G.H. Altenmueller
- Briefs  
Thomson Management Changes ..... 74

## TECHNOLOGY TRANSFER

- French Firm 'Cellier' Does Big Business With USSR, GDR  
(Antoine Thiboumery; L'USINE NOUVELLE, 4 Oct 84) ..... 75

JPRS-WST-85-007

15 February 1985

# West Europe Report

SCIENCE AND TECHNOLOGY

TABLE OF CONTENTS

JPRS-WST-84-022, 2 July 1984-

JPRS-WST-84-039, 18 December 1984



FOREIGN BROADCAST INFORMATION SERVICE



19 February 1985

## WEST EUROPE REPORT SCIENCE AND TECHNOLOGY

### CONTENTS

#### ADVANCED MATERIALS

- Siemens-Corning Plant To Manufacture Optical Fibers  
(HANDELSBLATT, 4 Dec 84) ..... 1

#### AEROSPACE

- FRG's DFVLR Ready for Participation in Space Station  
(FRANKFURTER ALLGEMEINE ZEITUNG, 3 Dec 84) ..... 3

- Briefs  
    SNPE Chemical Branch Revenue ..... 4

#### CIVIL AVIATION

- MBB Uses Superplastic Forming, Diffusion Bonding for Alloys  
(FRANKFURTER ZEITUNG/BLICK DURCH DIE WIRTSCHAFT, 3 Dec 84) ..... 5

#### COMPUTERS

- Finland's Nokia Increases Software Exports  
(POLYTEKNISK REVY, Sep 84) ..... 7

- Siemens Introduces Fast Computer With Pipeline Architecture  
(DIE COMPUTER ZEITUNG, 3 Oct 84) ..... 8

- Overview of Leading-Edge Research at French CNRS Lab  
(P. Truc; MICRO ET ROBOTS, Jan 85) ..... 9

- Briefs  
    New Bull Computer Line ..... 26  
    SEL Forms New Partnership ..... 26

## FACTORY AUTOMATION

French Panel Makes Specific Proposals for Robotics Research (MISSION ROBOTIQUE 1 & 2, various dates) .....	27
Current State of French Robotics, by M. Petiteau, et al. Number, Uses of Robots in France Location of Robotics Labs in France Recommendations for Research in Certain Components Details on French Robotics Research Conclusions of Commission's Report	
Alfa Romeo, Milan Polytechnic Develop Industrial Robot (INFORMATICA 70, Jul-Aug 84) .....	100
Swedish Demonstration Project for Advanced Flexible Assembly (NY TEKNIK, 4 Oct 84) .....	102
FMS Cell in Operation at Swedish Tool Maker (TEKNIK I TIDEN, No 4, 1984) .....	104
Organization, Administration of French Modernization Funds (Ph. Grange; MICRO ET ROBOTS, Nov 84) .....	106

## MICROELECTRONICS

Esprit Funds Software, CIM Research by Bull, DEC (Various sources, 12 Oct 84) .....	110
Software Environment Development Comau, Renault, DEC Research CIM	
Thomson Semiconductor Makes Profit in Last Quarter of 1984 (ELECTRONIQUE ACTUALITES, 16 Nov 84) .....	112
Briefs	
Siemens Microelectronics Center in Duesseldorf	114
New Austrian Electronics Institute	114
New Bull Microcomputer Factory	114

## SCIENTIFIC AND INDUSTRIAL POLICY

Sixth European AI Conference Highlights Lack of Scientists (Walter Reuter; COMPUTERWOCHE, 5 Oct 84) .....	115
--	-----

Status of Specific FRG High Tech Research Funded by BMFT (VDI NACHRICHTEN, 12 Oct 84) .....	117
New Coating Technique Developed, by Joerg Kieser, Michael Sellschopp Zeiss Develops Laser Components New Surface Treatment DM 320 Million for Sensor Research, by Klaus P. Friebe Electronically-Controlled Engine, by Hans Joachim Wendt Venture Capital for Manipulator Research, by Norbert Schlinn Requirements for Receiving Venture Capital, by Wolf-Dieter Oels	
EEC Proposes Eight Research Programs for 1984-87 (AFP SCIENCES, 8 Nov 84) .....	126
French Research Minister on Policy, Technology Transfer (Hubert Curien Interview; MICRO ET ROBOTS, Nov 84) .....	128
Briefs More Engineers for France	136

1 March 1985

# WEST EUROPE REPORT

## SCIENCE AND TECHNOLOGY

### CONTENTS

#### AEROSPACE

FRG Wants Ariane V To Be Able To Launch Manned Vehicles (Goetz Wange; FLUGREVUE, Oct 84) .....	1
ESA Organizing New Aerospace Programs (Guenter Paul; FRANKFURTER ALLGEMEINE ZEITUNG, 22 Dec 84)	7
Briefs Fokker's Participation in ERS-1 Satellite	9

#### CIVIL AVIATION

Italian Aircraft Industry Reorganizes To Be More Competitive (Klaus Mueller; FLUG REVUE, Nov 84) .....	10
---	----

#### COMPUTERS

ITALCAD To Provide Fifth-Generation Computer Technology (ATA-INGEGNERIA AUTOMOTORISTICA, Aug-Sep 84) .....	14
France's ONERA Works on Supercomputer Architecture (Franck Barnu; INDUSTRIES & TECHNIQUES, 10 Nov 84) .....	16

#### FACTORY AUTOMATION

Briefs Finland's Valmet Starts CAM Production	18
--	----

#### MICROELECTRONICS

Commentary on Spin-Off Firms in FRG Industry (Hans-Otto Eglau; DIE ZEIT, 30 Nov 84) .....	19
Siemens, Philips Hope To Combat Japan With Megachips (DIE WELT, 5 Nov 84) .....	24

Briefs	
Bull Reduces Manpower	26
SCIENTIFIC AND INDUSTRIAL POLICY	
Government Aid for Microelectronics Development in Austria (Heinz Fischer; ELEKTRONIK-REPORT, Oct 84) .....	27
Report Assesses FRG R&D Competitiveness (HANDELSBLATT, 20 Dec 84) .....	29
Finland's First Information Technology Center Begins Operation (HELSINGIN SANOMAT, 16 Jan 85) .....	33
Briefs	
Netherlands Extends Automation Projects	34
TECHNOLOGY TRANSFER	
Spanish 'Secret Document' Cites U.S. Demands on Tech-Transfer (Carlos Gomez; EL PAIS, 16 Jan 85) .....	35
Spain Feels Effects of U.S. Export Policy (Editorial; YA, 1 Feb 85) .....	37
Switzerland Raises Objections to New U.S. Export Controls (Berne; NEUE ZUERCHER ZEITUNG, 17 Jan 85) .....	39
Finnish Chemical Firm Signs Large Contract With USSR (HUFVUDSTADSBLADET, 12 Jan 85) .....	43
EC Creates TII To Achieve Orderly Technological Transfers (ATA-INGEGNERIA AUTOMOTORISTICA, Aug-Sep 84) .....	44
Briefs	
China Buys French Computer Hardware	45
Swedish Machine Tool Know-How to USSR	45

20 March 1985

# WEST EUROPE REPORT

## SCIENCE AND TECHNOLOGY

### CONTENTS

#### AEROSPACE

##### Briefs

France-China Agreement	1
------------------------	---

#### BIOTECHNOLOGY

Status of Research in European Association for Biotechnology (FRANKFURTER ZEITUNG/BLICK DURCH DIE WIRTSCHAFT, 18 Jan 85).....	2
---	---

#### MICROELECTRONICS

Philips Lab X-ray Analysis of Gallium Arsenide Crystals (ELEKTRONIKPRAXIS, Nov/Dec 84).....	6
--	---

New Facilities for Siemens-Philips 'Megaproject' (EEE, 6 Nov 84).....	7
--	---

EC Gives 450 Million Guilders to ESPRIT (Wynold Verwey; NRC HANDELSBLAD, 25 Jan 85).....	9
---	---

##### Briefs

SGS-ATES, Ericsson Chip Agreement	11
Leti Seeks Partners	11
Siemens Investment in Megaproject	11

#### SCIENTIFIC AND INDUSTRIAL POLICY

FRG To Cooperate With U.S. in Space Policy in View of SDI (Editorial; FRANKFURTER ALLGEMEINE, 19 Feb 85).....	12
--	----

French National Assembly Discusses 85 R&D Budget, Structure (AFP SCIENCES, 8 Nov 84).....	13
Budget Issues Debated Speech by Curien	
EEC Members Recommend Better Venture Capital Laws (EEE, 6 Nov 84).....	44
France Evaluates First 3 Years of Electronics Plan (ELECTRONIQUE ACTUALITES, 23, 30 Nov 84).....	45
Growth of Electronics Sector New Strategy Emerges, by P. Schaeffer	
Science and Technology Center Begins Operating in Southern Italy (Robert Fabiani; L'ESPRESSO, 9 Dec 84).....	49
Siemens Builds New Regensburg, Munich Plants (SIEMENS-MITTEILUNGEN, No 10, 1984).....	52
Philips of Netherlands in 17 ESPRIT Research Projects (Dick Wittenberg; NRC HANDELSBLAD, 10 Jan 85).....	53
Funds Total 1.9 Billion Guilders Cooperation Within ESPRIT	
Briefs	
AEG Telefunken R&D Investments	57
ESPRIT Grants for Philips	57
TECHNOLOGY TRANSFER	
Europeans Vie for Aerospace Sales to China (AFP SCIENCES, 8 Nov 84).....	58



1 April 1985

# WEST EUROPE REPORT

## SCIENCE AND TECHNOLOGY

### CONTENTS

#### ADVANCED MATERIALS

- Saab Launches Company to Market Composites Technology  
(Per Rydgren; PLASTFORUM SCANDINAVIA, Nov 84)..... 1

#### AEROSPACE

- Finland To Seek Associate Membership in ESA  
(Jyri Raivio; HELSINGIN SANOMAT, 1 Feb 85)..... 2

#### BIOTECHNOLOGY

- French Biotech Boosted by New Company Acquisitions  
(AFP SCIENCES, 22 Nov 84)..... 5

#### CIVIL AVIATION

- Briefs  
KLM To Order Fokker 100's 6  
Fokker Wins Second F-50 Order 6  
Thomson Equips A 320 6

#### COMPUTERS

- U.S. Market Crucial to Ericsson's Strategy  
(Sven-Ivan Sundqvist; DAGENS NYHETER, 24, 25 Feb 85)..... 7  
  
New IBM-Compatible Microcomputer From Bull of France  
(Fabienne Tisserand; ZERO UN INFORMATIQUE HEBDO, 17 Dec 84).18  
  
First French 'Supercomputer' Marisis To Be Ready by 1988  
(AFP SCIENCES, 20 Dec 84).....21

## MICROELECTRONICS

French Electronics Production Predicted to Double by 1989 (AFP SCIENCES, 22 Nov 84).....	23
Rennes Factory of SGS-ATES Increases Chip Production (J. P. Della Mussia; ELECTRONIQUE ACTUALITES, 14 Dec 84).....	24
Briefs	
Thomson-CEA IC's	28
Thomson-Oki Cooperation	28

## SCIENTIFIC AND INDUSTRIAL POLICY

Austria Invests Millions To Promote Microelectronics (PROFIL, 21 Jan 85; ELEKTRONIKSCHAU, Nov 84).....	29
Microelectronics Has Priority, by St. M. Gergely 'Applied Electronics Institute' Founded, Fritz Paschke Interview	
Denmark: Five-Year Plan To Develop Technology (INFORMATION, 24 Jan 85; BERLINGSKE TIDENDE, 30 Jan 85).....	34
Research Council Activities Technology Council Activities, by Svend Bie	
Matra 1984 Earnings Show Effects of Diversification (Jean Gloaguen; LE NOUVEL ECONOMISTE, 1 Feb 85).....	37
Venture Capital Companies Take Off in Finland (Heikki Arola; HELSINGIN SANOMAT, 22 Jan 85).....	47
Venture Capital Funds Thomson-Alcatel Optical Disk Project (Eric Walther; L'USINE NOUVELLE, 13 Dec 84).....	55
More Japanese Investment in France Spurred by Protectionism (Georges Le Gall; L'USINE NOUVELLE, 13 Dec 84).....	57
EEC Approves \$900 Million Research Funds for Next 5 Years (AFP SCIENCES, 20 Dec 84).....	62
Netherlands Minister Calls for EEC Talks on High-Tech Duties (ANP NEWS BULLETIN, 12 Feb 85).....	64
EEC Launches 'Brite' Program for Industrial Technologies (Jacques Poncin; LE SOIR, 15 Feb 85).....	65
Study Shows UK R&D Spending Down, Scientists Leaving (FRANKFURTER ZEITUNG/BLICK DURCH DIE WIRTSCHAFT, 25 Jan 85).....	67

Details on Dutch Firms, Their Projects, Funded by ESPRIT (Zeger Luyendijk, Wubbo Tempel; NRC HANDELSBLAD, 28 Jan 85).....	69
BMFT Adviser Blasts FRG Failure To Support Growth Industries (Leo A. Nefiodow; WIRTSCHAFTSWOCHE, 11 Jan 85).....	72
EC Funds To Promote Cooperation, Exchanges Among Scientists (Casper Schuurin; PT AKTUEL, 31 Oct 84).....	78
FRG Start-up Aid to High Tech Entrepreneurs Cataloged (WIRTSCHAFTSWOCHE, 11 Jan 85).....	82
Briefs	
FRG Information Technology Funds	85

#### TECHNOLOGY TRANSFER

Dutch Journalist Questions West's Policy on High-Tech Exports (Rik Coolsaet; KNACK, 9, 16 Jan 85).....	86
Implications of Pegard Sale to China Eastern Europe Suffers Most	

10 April 1985

## WEST EUROPE REPORT

### SCIENCE AND TECHNOLOGY

#### CONTENTS

##### ADVANCED MATERIALS

###### Briefs

Metal Matrix Composites Process	1
Renault Tests Engine Ceramics	1
New Composite at Volvo	1

##### AEROSPACE

Swedish Report on Recent ESA Meetings in Rome (Johan Myrsten; SVENSKA DAGBLADET, 5 Feb 85).....	2
FRG Commentary on Recent ESA Meetings in Rome (WIRTSCHAFTSWOCHE, 8 Feb 85).....	5
Swedish Participation in European Space Projects Outlined (Lars Hellerstedt; SVENSKA DAGBLADET, 9 Feb 85).....	8

##### CIVIL AVIATION

Airbus Construction Distributed Among Aerospatiale Plants (AEROSPATIALE, Feb 85).....	10
Saint-Nazaire Makes A 320 Section Automated Riveting at Nantes, by Evelyne Boury	
French Laboratories To Work in Turbine Engine Research (Philippe Ramette; DEFENSE NATIONALE, Feb 85).....	14

##### COMPUTERS

Cap Sogeti of France Gets ESPRIT Funds for AI Research (ELECTRONIQUE ACTUALITES, 7 Dec 84).....	16
--	----

## FACTORY AUTOMATION

Alfa Romeo Automates With Lasers and Robots (Giuseppe D'Avanzo; IL TEMPO, 23 Jan 85).....	18
Three-Country Study on Industrial Use of Microelectronics (FRANKFURTER ALLGEMEINE ZEITUNG, 6 Feb 85).....	21
Funding Sources, Organization of CAD/CAM Research in FRG (H. C. Guenter Spur; TECHNISCHE RUNDSCHAU, 9 Oct 84).....	23
Exports, Protectionism Affect 1984-85 FRG Machine Tool Firms (Helmut von Monschaw; TECHNISCHE RUNDSCHAU, 9 Oct 84).....	30
BMFT Project Develops Automation for Steel Production (VDI NACHRICHTEN, 23 Nov 84).....	33
Briefs	
New Trumpf Assembly Building	35
New ASEA R&D Unit	35
Toyoda-Renault Machine Tools	36
CGE Creates CIM Firm	36

## MICROELECTRONICS

French Program 'Coralie' for Gate Array Circuit Design (ELECTRONIQUE INDUSTRIELLE, 15 Nov 84).....	37
Finnish Companies Begin Manufacturing Silicon Wafers (Bjarne Nyman; FORUM FOR EKONOMI OCH TEKNIK, 6 Feb 85).....	39

## SCIENTIFIC AND INDUSTRIAL POLICY

U.S. Subsidiary To Participate in 'ESPRIT' CIM Project (FRANKFURTER ZEITUNG/BLICK DURCH DIE WIRTSCHAFT, 14 Feb 85).....	41
FRG's Fraunhofer Institute Reviews Its Research, Financing (E. K. Aschmoneit; VDI NACHRICHTEN, 16 Nov 84).....	43
Venture Capital Meeting Outlines Current FRG Situation (E. Schmidt; VDI NACHRICHTEN, 16 Nov 84).....	47
Money, Manpower Spent on French R&D in 1982 by Sector (Catherine Vincent; INDUSTRIES ET TECHNIQUES, 20 Nov 84)...	50
French Sources, Types of Financing for High-Tech Innovation (INDUSTRIES ET TECHNIQUES, 20 Nov 84).....	57
COFACE Changes Risk-Guarantee Guidelines at FIMTM's Request (INDUSTRIES MECANIKES, 29 Nov 84).....	63

France's RPR Calls Electronics Plan 'Big Failure'	
(AFP SCIENCES, 6 Dec 84).....	65
New Venture Capital Company Established in Munich	
(HANDELSBLATT, 21 Jan 85).....	67
New Venture Capital Company Established in Berlin	
(HANDELSBLATT, 23 Jan 85).....	69
Research Minister on FRG Technological Strengths, Directions	
(Heinz Riesenhuber Interview; WIRTSCHAFTSWOCHE, 8 Feb 85)....	70
Venture Capital Attitudes, Practices in FRG	
(WIRTSCHAFTSWOCHE, 8 Feb 85).....	74
Briefs	
Italian Research Ministry Grows	79
Technical Education in France	79
French Computer Education Institute	79
France-Japan Database Cooperation	80

#### TECHNOLOGY TRANSFER

Commentary on Industrial Espionage Issues in FRG	
(WIRTSCHAFTSWOCHE, 18 Jan 85).....	81

26 April 1985

## WEST EUROPE REPORT SCIENCE AND TECHNOLOGY

### CONTENTS

#### ADVANCED MATERIALS

Gigantic Lithium Deposit Discovered in France ( Jean-Francois Rouge; LIBERATION, 19 Feb 85).....	1
Briefs	
Netherlands Funds Membrane Technology	4

#### AEROSPACE

Ignition, Separation of Boosters, Stages in Ariane 3 (Goetz Wange; FLUGREVUE, Dec 84).....	5
---	---

#### BIOTECHNOLOGY

Study of Biotech in France Shows Research, Finance Status (BIOFUTUR, Dec 84).....	8
Current Situation Overview, by Jean Comar, et al.	8
Lack of Scientists in Microbiology, by Betty Dodet	16
Research in Enzyme Engineering, by Nelly Cochet	17
Research in Genetic Engineering, by Betty Dodet	20
Public Research in Immunology	22
Lab Equipment Suppliers, by Nelly Cochet	26
Research at State Organizations, by Marie-Francoise Chevallier	29
Health Products From Industry, by Betty Dodet	33
Sources of Financing, by Helene Constanty, Laurent Faibis	42



Biocarb of Sweden Funds Hormone, Agricultural Research (Carl-Ake Nilsson; SVENSKA DAGBLADET, 13 Dec 84).....	48
Briefs	
Microbes Retain Moisture	50
CIVIL AVIATION	
A 320 To Have Combined Automatic Pilot, Flight Control System (H. Prandenc; ELECTRONIQUES ACTUALITES, 14 Dec 84).....	51
COMPUTERS	
ERRATUM: Dataflow Machine Research Presented by French Conference (MINIS ET MICROS, 22 Oct 84).....	53
ERRATUM: French Work Toward 'Flexible Software Workshops' (LE NOUVEL AUTOMATISEME, Oct 84).....	55
FACTORY AUTOMATION	
Bosch of FRG Develops Assembly Robot With BMFT Funds (VDI NACHRICHTEN, 12 Oct 84).....	62
China Wants To Buy Swedish Robots (Goran Lundstrom; NY TEKNIK, 15 Nov 84).....	63
MBB Automates Aircraft Production in Many FRG Facilities (Hellmut Penner; FLUGREVEU, Dec 84).....	65
Briefs	
ASEA-Japan Robotics Cooperation	68
SCIENTIFIC AND INDUSTRIAL POLICY	
European Leaders Discuss High Tech as Key to Economic Recovery (VDI NACHRICHTEN, 23 Nov 84).....	69
Research Projects, European Technological Development Cited (NRC HANDELSBLAD, 13 Feb 85).....	73
Netherlands Tightens Research Subsidy Rules, by Paul Friese Lubbers Wants Technology Talks	
Swiss Executive on Europe's Technological Strength, Weakness (A. P. Speiser; NEUE ZUERCHER ZEITUNG, 27 Feb 85).....	76
Study of Individual FRG Firms Reveals Stagnant R&D Investment (INDUSTRIMAGAZINE, 15 Nov 84).....	83

40 Million Dollars for Laser Research  
(Giuseppe D'Avanzo; IL TEMPO, 22 Jan 85)..... 90

FRG Government, Siemens Build High-Tech Facilities in Munich  
(MUENCHNER STADTANZEIGER, 8 Feb 85; SUEDEDEUTSCHE  
ZEITUNG, 23 Feb 85)..... 92

New Siemens Factories for 'Megaproject', by Karl  
Stankiewicz  
Technology Park in Westend, by Thomas Muenster

#### TECHNOLOGY TRANSFER

Briefs  
Finnish Cable-Machinery to China 97

7 May 1985

# WEST EUROPE REPORT

## SCIENCE AND TECHNOLOGY

### CONTENTS

#### ADVANCED MATERIALS

CERATEC, Fine Ceramics Enterprise, Established (EL PAIS, 15 Feb 85).....	1
---	---

#### AEROSPACE

Swedish Equipment for Automatic Docking in Space (Nils-Erik Lindell; SVENSKA DAGBLADET, 22 Mar 85).....	2
--	---

#### BIOTECHNOLOGY

ELF of France Reorganizes Its Biotech Activities (L'USINE NOUVELLE, 29 Nov 84; BIO LA LETTRE DES BIO- TECHNOLOGIES, Dec 84).....	5
New Grouping, by Philippe Lanone People, Revenue Involved	5 7
Norwegian Government Funds Biotech Research for 1985-87 (Tove Diesen; AFTENPOSTEN, 20 Dec 84).....	9
Interview With Head of Novo, Called Best in Field (Mads Ovlisen Interview; MANEDS BORSEN, Feb 85).....	11
Denmark's Novo Sees Profits Down in 1984 (BERLINGSKE TIDENDE, 8 Mar 85).....	18
New Swedish Center for Biotechnology R&D (Inger Atterstam; SVENSKA DAGBLADET, 22 Mar 85).....	20
Briefs	
Roussel UCLAF, CNRS Research Team	23
Canada Releases Biotech Recommendations	23

Study on Biotechnology in Italy	23
New Electrophoresis Method in UK	24

## COMPUTERS

FRG To Fund R&D for Sensors, Power Electronics (FRANKFURTER ZEITUNG/BLICK DURCH DIE WIRTSCHAFT, 22 Feb 85).....	25
French Supercomputer Program 'Marisis' Focuses on Architecture (Ph. Marel; ELECTRONIQUE ACTUALITES, 21 Dec 84).....	26
Briefs	
FRG Supercomputers Planned	30
Nixdorf Grows in Asian Market	30

## FACTORY AUTOMATION

Resources for Robotics Research in Europe, by Country (INDUSTRIES & TECHNIQUES, Dec 84).....	31
FRG Oriented Toward Applications, by Pierre Iticsohn	31
CAD/CAM Research in Sweden, by Jean-Louis Toumit	34
UK Industrial Robots Research, by Jean-Louis Toumit	36
Collaboration Among Italian Firms, by Andre Larane	38
'Microtechnology' in Switzerland, by Genevieve Hermann	40
Spain Develops Domestic Technology, by D. Crespo	42
French Manufacturers Compete, by Michel Alberganti	45
French Scientists, Funds, Programs, by Paul Wagner	50

## MICROELECTRONICS

Swedish National Microelectronics Program Funding, Goals (Mats Lindberg; GNISTAN, 14 Mar 85).....	59
Molecular Beam Epitaxy for Gallium Arsenide Components in FRG (E. Schmidt; VDI NACHRICHTEN, 4 Jan 85).....	62
Briefs	
Rifa Microelectronics Development Project	64
New Siemens Components Factory	64

## SCIENTIFIC AND INDUSTRIAL POLICY

French ANVAR Activities, Dispensation of Funds Reviewed (L'ENTREPRISE, Feb 85).....	65
Reports Say Swiss Losing Ground in High-Tech Competition (Jean-Luc Lederrey; JOURNAL DE GENEVE, 1 Mar 85).....	67

France's Problems Persist, Second Three-Year Plan for R&D (Jean-Paul Croize; LE FIGARO, 7 Mar 85).....	70
---	----

#### TECHNOLOGY TRANSFER

Finland's Valmet Sends Automation Machines to Soviet Auto Plant (HELSINGIN SANOMAT, 29 Feb 85).....	73
--	----

Swedish Sale of U.S. Technology to East Through Network (Bo G. Andersson; DAGENS NYHETER, 7 Mar 85).....	75
---	----

Danish Electronics for Indian Space Program (Bo Jorgensen; BERLINGSKE TIDENDE, 14 Mar 85).....	77
---	----

Briefs Sweden-South Korea Technical Cooperation	78
--	----

14 May 1985

## WEST EUROPE REPORT

### SCIENCE AND TECHNOLOGY

#### CONTENTS

##### AEROSPACE

- CNES of France Researches Remote Control System for Space  
(Jean-Michel Guilbert; REVUE GENERALE DE L'ELECTRICITE,  
Nov 84)..... 1
- SNECMA of France Funds Programs at SEP  
(ELECTRONIQUE ACTUALITES, 25 Jan 85)..... 5
- Speed Up Hermes To Give Europeans Space Access, Ducrocq Says  
(Albert Ducrocq; SCIENCES & AVENIR, Feb 85)..... 7

##### BIOTECHNOLOGY

- Coordination of Membrane Technology Research in FRG Urged  
(H. Strathmann; VDI NACHRICHTEN, 12 Oct 84)..... 12
- Netherlands Promotes Monoclonal Antibodies Use in Agriculture  
(E. J. Boer, Wubbo Tempel; NRC HANDELSBLAD, 6 Mar 85)..... 15

##### CIVIL AVIATION

- DFVLP Develops New Kind of Walls for Wind Tunnel  
(FRANKFURTER ZEITUNG/BLICK DURCH DIE WIRTSCHAFT,  
4 Mar 85)..... 18
- Administration Pressuring Iberia To Buy Airbus  
(Jesus Rivases; TIEMPO, 18 Mar 85)..... 20

## COMPUTERS

Background, Structure, Functioning of ESPRIT Program (Andre Danzin; DEFENSE NATIONALE, Feb 85).....	24
Alcatel-Thomson Gigadisc's Strategy, Financing for Memories (REVUE GENERALE DE L'ELECTRICITE, Dec 84; MINIS ET MICROS, 21 Jan 85).....	39
Product Strategy Outlined	39
Financial Participation Detailed	41
Thomson Subsidiary Opens Software R&D Center in Metz (Michel Barreau; ZERO UN INFORMATIQUE HEBDO, 14 Jan 85).....	43
Sweden's Ericsson: Profits Down in 1984 (SVENSKA DAGBLADET, 12 Mar 85).....	46
Results Published, by Lars Erik Ohlin	46
Production Problems, by Lars-Georg Bergkvist	47
Briefs	
Onera Starts Using Cray-S2000	50

## MICROELECTRONICS

Thomson SC To Cede MOS Research to LETI of France (JP Della Mussia; ELECTRONIQUE ACTUALITES, 21 Dec 84).....	51
IC, Computer Revenue Up for Siemens Components Branch (JP Della Mussia; ELECTRONIQUE ACTUALITES, 21 Dec 84).....	54
Lattice Logic of Scotland Unique in Mask Design (ZERO UN INFORMATIQUE HEBDO, 21 Jan 85).....	57
FRG To Fund New 'Microperipheral' Program for 1985 to 1989 (SUEDEDEUTSCHE ZEITUNG, 21 Feb 85).....	59
FRG Grants DM 5.8 Million to Applied Microelectronics Center (Ludwig Fisch; SUEDEDEUTSCHE ZEITUNG, 22 Feb 85).....	61
Comau, Renault Work on CAD Research for ESPRIT (LA LIBRE BELGIQUE, 25 Mar 85).....	63

## SCIENTIFIC AND INDUSTRIAL POLICY

Dekker of Philips on Japanese Competition, European Unity (Dick Wittenberg; NRC HANDELSBLAD, 6 Mar 85).....	65
Lubbers of Netherlands Wants Unified European High Tech Policy (Wynold Verwey; NRC HANDELSBLAD, 6 Mar 85).....	70



31 May 1985

## WEST EUROPE REPORT

### SCIENCE AND TECHNOLOGY

#### CONTENTS

##### AEROSPACE

Volvo Aircraft Engine Firm in ESA Project (Jan Lothigius; NY TEKNIK, 31 Jan 85) .....	1
FRG Spacelab Payload Ready for Shipment To Launch Site (Wolfgang Heyen; FRANKFURTER ALLGEMEINE ZEITUNG, 16 Mar 85)	4
Briefs	
Netherlands Joins Space Project	6

##### AUTOMOBILE INDUSTRY

Details on Saab's New Computerized Distributor System (Ulf Bergmark; NY TEKNIK, 24 Jan 85) .....	7
Citroen Designs, Builds Car in Three Weeks by Computer (LE FIGARO MAGAZINE, 9 Mar 85) .....,.....	10
VW Builds Car With Automatic Anti-Skid System (VDI NACHRICHTEN, 7 Dec 84) .....	13

##### BIOTECHNOLOGY

Netherlands Funds Biotech Research at Delft-Leiden (PT AKTUEEL, 2 Jan 85) .....	16
France Opens Its Largest Biotech Center in Labège (AFP SCIENCES, 17 Jan 85) .....	19
FRG Analyzes State of Domestic Genetic Engineering Efforts (FRANKFURTER ZEITUNG/BLICK DURCH DIE WIRTSCHAFT, 22 Mar 85)	21

## CIVIL AVIATION

FRG Airbus Financing Assured Until 1996 (HANDELSBLATT, 22 Jan 85) .....	26
France's Onera Studies Propfans, Wind Tunnel Tests in 1985 (L'HUMANITE, 9 Mar 85) .....	27
Briefs	
Martinair Cancels Airbus Order .....	29

## COMPUTERS

New French Firm Commercializing Artificial Intelligence (Jean-Louis Peytavin; LE FIGARO, 1 Mar 85) .....	30
Development Timetable for French Supercomputer Marisis (Anita Castiel; L'USINE NOUVELLE, 25 Apr 85) .....	32
Head of France's Bull Defines Strategy Regarding IBM (Christiane Guery; LE FIGARO, 20 Feb 85) .....	35
Opinions Differ on Success of EEC's Esprit Program (Various sources, various dates) .....	37
EC Experts Cite Successes .....	37
FRG Firms Have Problems .....	38
Cray 1M at Berlin Computer Center for Vector Research (VDI NACHRICHTEN, 28 Dec 84) .....	44

## FACTORY AUTOMATION

Italian Machine Tool Show Highlights Heavy Equipment (Kurt Haeuser; TECHNISCHE RUNDSCHAU, 4 Dec 84) .....	45
Robot Use Increases in FRG (VDI NACHRICHTEN, 4 Jan 85) .....	52
Philips of Netherlands Competes in Numerical Controls (Antoine Schoen; L'USINE NOUVELLE, 14 Feb 85) .....	54
Briefs	
Elsag Contract With U.S. Firm .....	56

## MICROELECTRONICS

Overview of Funds, Firms, Projects for Esprit in 1985 (F. Grosvalet; ELECTRONIQUE ACTUALITES, 1 Feb 85) .....	57
Philips, Others Propose 390 Projects for Second Esprit Round (Dick Wittenberg; NRC HANDELSBLAD, 3 Apr 85) .....	60

SOI, Submicron MOS Studied by France, FRG, Italy, UK, for Esprit (F. Grosvalet; ELECTRONIQUE ACTUALITES, 1 Feb 85) .....	62
New LETI Facilities in France Focus on MOS, Infrared IC's (J.P. Della Mussia; ELECTRONIQUE ACTUALITES, 1 Feb 85) ..	65
Thomson Subsidiary Makes Profits in Passive Components (J. P. Della Mussia; ELECTRONIQUE ACTUALITES, 8 Feb 85) .	69
Briefs	
French Electronics 1985 Funds	72
French Military Infrared Components	72
France's CNRS 1985 Budget	73
Wafer Production in Finland	73

#### SCIENTIFIC AND INDUSTRIAL POLICY

Benefits of Tax Rebate for Research in France for 1984 (INDUSTRIES & TECHNIQUES, 20 Jan 85) .....	74
Roundup of Funds Granted by France's ANVAR in 1984 (AFP SCIENCES, 24 Jan 85) .....	78
French Industrial Modernization Fund Gets Fr 9 Billion for 1985 (ELECTRONIQUE ACTUALITES, 25 Jan 85) .....	82
COFACE of France To Offer Service for 'Risk Countries' (Roselyne de Clapiers; L'USINE NOUVELLE, 25 Apr 85) .....	84
Ten Firms Form 'Euroventures' Venture Capital Company (Helene Constanty; TERTIEL, Feb 85) .....	86
Five FRG Banks Invest in Reorganized Venture Capital Firm (PRODUKTION, 15 Nov 84) .....	88
FRG Prepares Capability Study for Participation in SDI (FRANKFURTER ALLGEMEINE, 28 Mar 85) .....	90
FRG Promotes Computer Literacy at Secondary Schools (VDI NACHRICHTEN, 4 Jan 85) .....	92
Reorganization at Ministry of Research, Technology in France (AFP SCIENCES, 17 Jan 85) .....	94
Five-Year Scientific, Technological Program Summarized (Carmen Marino; EL PAIS, 8 Feb 85) .....	96
Philips Reorganizes Audio-Visual, Household Products Branches (Dick Wittenberg; NRC HANDELSBLAD, 28 Mar 85) .....	99
Max-Planck Institute Report Outlines 1984 Activities (CHEMISCHE RUNDSCHAU, 25 Jan 85) .....	102

**Briefs**

Hamburg Technology Center	104
R&D Investment at Bosch	104
Bull of France Issues Loan	105
New Law on French Researchers	105

11 June 1985

## WEST EUROPE REPORT SCIENCE AND TECHNOLOGY

### CONTENTS

#### AEROSPACE

FRG's MBB/ERNO Is Prime Contractor for Eureka Platform (MBB AKTUELL, Jan 85) .....	1
Dassault of France 'Ready' for Hermes Shuttle (Bruno Revellin-Falcoz Interview; L'USINE NOUVELLE, 31 Jan 85) .....	3
French Participation in, Spinoffs From, Eureka Platform (ELECTRONIQUE ACTUALITES, 22 Feb 85) .....	6

#### BIOTECHNOLOGY

New Biotech Firms, Funds Spring Up in Sweden (NY TEKNIK, 31 Jan 85) .....	8
Commercial Profits, State Funding for Biotech Up in FRG . (B. Eusemann; VDI NACHRICHTEN, 15 Feb 85) .....	11
Briefs	
Sweden's Volvo Buys Pharmacia AB	13
EEC 5-year Funding	13

#### CIVIL AVIATION

Airbus Industrie Procedures for Choosing A-320 Suppliers (Alain Barbanel; L'USINE TERTIEL, Feb 85) .....	14
Background on New Airbus Industrie Chief Jean Pierson (Patrick Piernaz; L'USINE NOUVELLE, 14 Feb 85) .....	19
MBB of FRG To Develop Helicopter Airframe Made of Composites (FRANKFURTER ZEITUNG/BLICK DURCH DIE WIRTSCHAFT, 11 Apr 85)	21

## COMPUTERS

DFVLR, GMD, Erlangen, Others Work on FRG Supercomputer (INDUSTRIEMAGAZIN, 15 Jan 85) .....	23
GMD of FRG Announces 1985 R&D Budget, Projects (G. H. Altenmueller; VDI NACHRICHTEN, 1 Mar 85) .....	26

## MICROELECTRONICS

Thomson of France Presents Preliminary 1984 Results (LE MONDE, 18, 19 Apr 85) .....	28
'Near Equilibrium'	28
Thomson Strategy	29
Briefs	
Revenue at Thomson Semiconductors	30

## SCIENTIFIC AND INDUSTRIAL POLICY

EC To Evaluate FRG Funding of Research Personnel (VDI NACHRICHTEN, 1 Mar 85) .....	31
FRG Research Expenditures, Funds Recipients, 1982-85 (VDI NACHRICHTEN, 25 Jan 85) .....	32
Sweden's R&D Expenditures for Advanced Technologies, 1973-1983 (Hans Werner; NY TEKNIK, 14 Mar 85) .....	34
Philips of Netherlands Seeks Faster Innovation Application (NRC HANDELSBLAD, 17 Apr 85) .....	37
Conditions for Funding From Swedish Venture Capital Sources (TEKNIK I TIDEN, No 5, 1984) .....	39

## TECHNOLOGY TRANSFER

Finland's Valmet Automation Firm Focuses on Soviet Exports (Juhani Pekkala; HELSINGIN SANOMAT, 23 Apr 85) .....	41
--	----

20 June 1985

## WEST EUROPE REPORT

### SCIENCE AND TECHNOLOGY

#### CONTENTS

##### AEROSPACE

- Small-Scale Model of Ariane 4 in Testing  
(Gilles Patri; REVUE AREOSPATIALE, May 85)..... 1

##### AUTOMOBILE INDUSTRY

- Application of Plastics in Production Model Automobiles  
(Michel Meilleray; L'ARGUS DE L'AUTOMOBILE, 21 Feb 85).... 5
- New Casting Process at Citroen of France  
(FRANKFURTER ZEITUNG/BLICK DURCH DIE WIRTSCHAFT,  
1 Apr 85)..... 10
- Series Production of Antiskid System at FRG Firm  
(FRANKFURTER ZEITUNG/BLICK DURCH DIE WIRTSCHAFT,  
10 Apr 85)..... 11

##### BIOTECHNOLOGY

- Briefs  
Biogen Consolidates Facilities 13

##### FACTORY AUTOMATION

- Swiss Lab Develops Sighted, Tactile Robots  
(Bruno Rewyl; ELECTRONIQUE, Oct 84)..... 14
- Report Analyzes Weaknesses of FRG Machine Tool Industry  
(INDUSTRIEMAGAZIN, Apr 85)..... 17

## MICROELECTRONICS

- Research, Activities, Organization at France's LETI  
(Eric Marshall; ZERO UN INFORMATIQUE HEBDO, 18 Feb 85).... 23

## SCIENTIFIC AND INDUSTRIAL POLICY

- Olivetti Reports First Half, 1984 Results to Shareholders  
(NOTIZIE OLIVETTI, Oct 84)..... 32
- Olivetti Acquires 49.3 Percent of British Acorn  
(L'INFORMATICA, Feb 85)..... 39
- New Max-Planck Research Centers in FRG 1985 Budget  
(TECHNISCHE RUNDSCHAU, 22 Jan 85)..... 40
- Ways to Improve FRG Venture Capital Climate Studied  
(Walther Konhaeuser, Hubert Pratschke; ELEKTRONIKER,  
Jan 85)..... 42
- Ciba-Geigy 1983, 1984 Earnings by Branch  
(CHEMISCHE RUNDSCHAU, 18 Jan 85)..... 45
- Use of Loss Carryback in FRG Income Taxes  
(Michale F. Raubal; INDUSTRIEMAGAZIN, Apr 85)..... 46
- EC To Promote High-Tech Research Cooperation With 'Brite'  
(CHEMISCHE RUNDSCHAU, 18 Jan 85)..... 48
- FRG Government Measures to Further Civil R&D Detailed  
(FRANKFURTER ZEITUNG/BLICK DURCH DIE WIRTSCHAFT,  
8 Mar 85)..... 49
- Government To Encourage Foreigners to Conduct R & D in Italy  
(INFORMATICA 70, Mar 85)..... 58
- Fiat's Agnelli Explains European Venture Capital Initiative  
(IL TEMPO, 23 Mar 85)..... 60
- High-Tech Application, Support Policy Succeeds in FRG State  
(Uwe Vorkoetter; DIE ZEIT, 5 Apr 85)..... 62
- Legal Status of FRG Research Institutes for Tax Purposes  
(FRANKFURTER ZEITUNG/BLICK DURCH DIE WIRTSCHAFT,  
11 Apr 85)..... 66



24 June 1985

## WEST EUROPE REPORT

### SCIENCE AND TECHNOLOGY

#### CONTENTS

##### AEROSPACE

Step-by-Step Launch Preparations for Ariane Rocket, Payload (A. Mechkak, T. Lavaud; L'AERONAUTIQUE ET L'ASTRONAUTIQUE, No 110, 1985).....	1
Finland Plans Panel To Study Space Policy (UUSI SUOMI, 27 May 85).....	22
Briefs	
Ariane Insurance	23

##### BIOTECHNOLOGY

Status, Outlook for Biotechnologies in France (AFP SCIENCES, 15 May 85).....	24
Briefs	
British Biotech R&D Program	31

##### CIVIL AVIATION

Briefs	
Airbus Industrie Reorganization	32

##### COMPUTERS

Siemens of FRG Introduces IBM-Compatible Supercomputer (Uli Deker; BILD DER WISSENSCHAFT, Jan 85).....	33
---	----

##### FACTORY AUTOMATION

Bosch of FRG Introduces Robot With Swinging Arm (MASCHINE + WERKZEUG, 7 Dec 84).....	35
---	----

Briefs	
Computerized Milling Shop	38
MICROELECTRONICS	
Italy's SGS-ATES Forges Ahead Under New Leadership (Pierre-Henri Badel; ELECTRONIQUE, Sep 84).....	39
Philips Labs Study New Optical Storage Methods (ELECTRONIQUE, Sep 84).....	44
SCIENTIFIC AND INDUSTRIAL POLICY	
Aid to Innovation From France's ANVAR in 1984, by Industry (INDUSTRIES & TECHNIQUES, 20 Feb 85).....	47
France Establishes Venture Capital Firms Abroad (Marie-Jeanne Pasquette; L'USINE NOUVELLE TERTIEL, Mar 85).....	50
France Increases Funding To Aid Industrial Research (AFP SCIENCES, 15 May 85).....	52
FRG R&D Funding by Region With Focus on Berlin, 1975-1984 (Kurt Hornschild; DEUTSCHES INSTITUT FUER WIRTSCHAFTSFORSCHUNG, No 142, 1985).....	54
BMFT Indirect Measures, Funds To Aid Research (EEE, 5 Mar 85) .....	95
TECHNOLOGY TRANSFER	
Former Foreign Minister Decries U.S. 'Blackmail' on Exports (VOKSSTIMME, 10 May 85) .....	97
Soviets Interested in Italian Titanium Production Method (IL SOLE 24 ORE, 6 Apr 85) .....	98
Briefs	
Acrylonitrile Plant in East Germany	99

5 July 1985

## WEST EUROPE REPORT

### SCIENCE AND TECHNOLOGY

### CONTENTS

#### ADVANCED MATERIALS

- New Branch for Ceramics, Silicon, Gallium at Rhone-Poulenc  
(Alain Pauche, Philippe Lanone; L'USINE NOUVELLE,  
20-27 Dec 84)..... 1
- Briefs
- Asea Powder Metallurgy Factory 4

#### BIOTECHNOLOGY

- Two French Firms Form Bio Europe for Enzyme Research  
(Herve Plagnol; L'USINE NOUVELLE, 7 Mar 85)..... 5
- Belgian PGS Seeking Agricultural Market  
(Pierre Heymans; INDUSTRIE MAGAZINE, Jun 85)..... 7
- Briefs
- Swedish Biotechnology Center Expanding 11

#### CIVIL AVIATION

- MBB Demonstrates New Research Aircraft 'Attas'  
(FRANKFURTER ALLGEMEINE ZEITUNG, 25 May 85)..... 12

#### FACTORY AUTOMATION

- Robot, Laser Tridimensional Cutting Technology Detailed  
(Elvio Berardi; ATA-INGEGNERIA AUTOMOBILISTICA, Dec 84)... 14
- Status of Renault's Automated Flexible Workshop at Boutheon  
(Philippe Escande; L'USINE NOUVELLE, 10 Jan 85)..... 21

## MICROELECTRONICS

France's LETI Reports 1983 Electronic Components Research (LETI: RAPPORT D'ACTIVITE 1983, 25 May 84).....	24
Leading-Edge Microelectronics Research at Sweden's Chalmers (TEKNIK I TIDEN, No 1, 1985).....	45
Ion Implantation, SOI	45
III-V Compounds	47
Swedish Program for Sensor Research, Development (TEKNIK I TIDEN, No 1, 1985).....	50

## SCIENTIFIC AND INDUSTRIAL POLICY

Philips' Internal Report Criticizes Japan's Electronics Tactics (Dick Wittenberg; NRC HANDELSBLAD, 8 May 85).....	52
FRG Venture Capital Companies Unwilling to Take Risks (WIRTSCHAFTSWOCHE, 8 Mar 85).....	58
FRG Region Brokers Venture Capital for High Tech Projects (Rolf Schiller; FRANKFURTER ZEITUNG/BLICK DURCH DIE WIRTSCHAFT, 3 May 85).....	63
BASF of FRG Increases R&D Rxpnditures (FRANKFURTER ALLGEMEINE ZEITUNG, 29 May 85).....	68
France Develops 1986-88 Plan for High Tech R&D (AFP SCIENCES, 7 Mar 85).....	69
French Research Minister on Eureka Project (Hubert Curien Interview; LE QUOTIDIEN DE PARIS, 5 Jun 85; FRANKFURTER RUNDSCHAU, 12 Jun 85).....	73
Defends Ambitious Projects'	73
Emphasizes 'Civilian' Uses	74
High Technology Cooperation With France Discussed (DIE PRESSE, 24 May 85).....	76
Flemish High Technology Strategy Criticized (KAPITAAL & BUSINESS, Spring 85).....	77

## TECHNOLOGY TRANSFER

Spanish Ministry Bars Reexport of Dual-Use Technology (Madrid Domestic Service, 7 Jun 85).....	83
Isar Valley: Greenhouse Climate for FRG Electronics Industry (Wilhelm Wimmer; HANDELSBLATT, 15 May 85).....	84

12 July 1985

## WEST EUROPE REPORT

### SCIENCE AND TECHNOLOGY

#### CONTENTS

##### AEROSPACE

- Europe Looks to Twenty-First Century With Hermes  
(REVUE AEROSPATIALE, Jun 85) ..... 1

##### BIOTECHNOLOGY

- Netherlands Reviews Academic-Business Ties in Biotechnology  
(Wubbo Tempel; NRC HANDELSBLAD, 22 May 85) ..... 5
- Netherlands Company Gets 40 Million Guilder Biotech Subsidy  
(NRC HANDELSBLAD, 4 Jun 85) ..... 11

##### CIVIL AVIATION

- Examination of SF-340 Design, Financial Problems  
(Jan Lothigius; NY TEKNIK, 11 Apr 85) ..... 13
- Automatic Programmable Riveting System for A 320  
(REVUE AEROSPATIALE, Jun 85) ..... 22
- 'Computerized Integrated Workshop' at Aerospatiale Nantes  
(REVUE AEROSPATIALE, Jun 85) ..... 24

##### COMPUTERS

- France's Thomson Launches Apple Competitor  
(AFP SCIENCES, 9 May 85) ..... 26
- Briefs  
Philips Wants Import Restrictions ..... 27

##### FACTORY AUTOMATION

- Results of FRG Industrial Technology Program, 1980-83  
(FRANKFURTER ZEITUNG/BLICK DURCH DIE WIRTSCHAFT, 8 May 85) ..... 28

## MICROELECTRONICS

Philips Involved in University Research Grants in Netherlands (Zeger Luyendijk; NRC HANDELSBLAD, 21 May 85) .....	30
Activities of French Philips Plant in Optoelectronics (J.P. Della Mussia; ELECTRONIQUE ACTUALITES, 17, 24 May 85)	33
GaAlAs Development	33
Expansion Planned	34
Philips Develops New Kind of Semiconductor Image Sensor (FRANKFURTER ZEITUNG/BLICK DURCH DIE WIRTSCHAFT, 8 May 85)	37
France's Pechiney Enters Electronics Ceramics Market (AFP SCIENCES, 9 May 85) .....	39
Order From 'Megachip' Project for Swedish Clean Room (Ulla Karlsson; NY TEKNIK, 18 Apr 85) .....	40
Briefs	
Ultra-Fast Belgian Transistor	41

## SCIENTIFIC AND INDUSTRIAL POLICY

EC Struggles With Research, SDI, Eureka Issues (NEUE ZUERCHER ZEITUNG, 8 Jun 85) .....	42
Spanish 'Science Law' Provides Five-Year Plan (AFP SCIENCES, 9 May 85) .....	47
French Science Park Takes Root Near Nice (Pierre Barrot; SCIENCE & VIE ECONOMIE, May 85) .....	48
Three-Year French Plan Increases R&D Efforts (ELECTRONIQUE ACTUALITES, 24 May 85) .....	51
Commentary on Danish Technology Development Program (Editorial; BERLINGSKE TIDENDE, 20 Feb 85) .....	52
Netherlands, FRG Companies Together in Brite Project (NRC HANDELSBLAD, 7 Jun 85) .....	54

## TECHNOLOGY TRANSFER

Sharp To Give Philips Factory-Automation Knowhow for LCD's (ANP NEWS BULLETIN, 21 May 85) .....	55
Briefs	
Greece-USSR Technological Cooperation	56

5 August 1985

## WEST EUROPE REPORT SCIENCE AND TECHNOLOGY

### CONTENTS

#### COMPUTERS

Nixdorf of FRG Explains Strategy for Expert Systems (W. Mock; VDI NACHRICHTEN, 15 Mar 85) .....	1
Details on Language Used by 'MAIA,' French AI Machine (Pierre Vandeginste; ELECTRONIQUE ACTUALITES, 1 Apr 85) .....	4
Dassault of France Wants Its CAD/CAM System To Be IBM Standard (Laurence Renoux; ELECTRONIQUE INDUSTRIELLE, 1 Apr 85) ...	7

#### BIOTECHNOLOGY

Briefs INSERM Roussel-Uclaf Agreement .....	9
--	---

#### FACTORY AUTOMATION

Financial Status of Renault Automation in 1984 (AFP SCIENCES, 10 Jan 85) .....	10
Pilot Plant for Automated Production of VW Gear Parts (MODERNE FERTIGUNG, Mar 85) .....	12
Siemens Computer Plant Automates Sheet Metal Fabrication (Th. Weber; VDI NACHRICHTEN, 29 Mar 85) .....	17

#### MICROELECTRONICS

France's Norbert-Segard Center Focuses on CMOS Research (Eric Marshall; ZERO UN INFORMATIQUE HEBDO, 4 Mar 85) ....	20
Description of Esprit Five-Year Subprograms, Their Manpower (MICRO-SYSTEMES, Mar 85) .....	23

'Insufficient Allocations' Plague French Electronics (D. Levy; ELECTRONIQUE ACTUALITES, 5 Apr 85) .....	27
--	----

#### Briefs

ICI Gallium Arsenide Wafers	29
First European GaAs Foundry	29
New Siemens U.S. Plant	29
Philips Proposes Esprit Projects	30

#### SCIENTIFIC AND INDUSTRIAL POLICY

Reportage on Summit of Leaders in Milan (AFP, 28, 29 Jun 85; Paris Domestic Service, 28 Jun 85)	31
High Tech Cooperation Plans	31
Eureka Approved	31
French Suggestions	32
Research Minister Discusses Guidelines on Eureka (DPA, 25 Jun 85) .....	33
Dumas Discusses 'Positive' Responses to Eureka (LE MONDE, 28 Jun 85) .....	34
R&D Expenditures at French Nationalized Firms in 1984 (AFP SCIENCES, 10 Jan 85) .....	36



6 August 1985

## WEST EUROPE REPORT

### SCIENCE AND TECHNOLOGY

#### CONTENTS

##### ADVANCED MATERIALS

- Dutch Innovation Program Focuses on Fiber-Reinforced Materials  
(Joost van Kasteren; PT AKTUEEL, 27 Mar 85) ..... 1
- Limoges in France To Focus on Ceramics Research  
(AFP SCIENCES, 28 Mar 85) ..... 5

##### AEROSPACE

- SEP Enters France's Secondary Stock Market  
(AFP SCIENCES, 28 Mar 85) ..... 7

##### COMPUTERS

- Breakdown of Projects, Countries, Funding for Esprit  
(Casper Schuurin; PT AKTUEEL, 6 Mar 85) ..... 8
- Dutch Expert: Europe To Have Optical Processor Within a Year  
(Casper Schuurin; PT AKTUEEL, 13 Mar 85) ..... 11
- Briefs  
Agency in Two Venture Firms ..... 15

##### FACTORY AUTOMATION

- FRG Builds 'Factory of Future' To Compete With U.S., Japan  
(E. Schmidt; VDI NACHRICHTEN, 15 Mar 85) ..... 16

##### MICROELECTRONICS

- Lack of Investment Hinders French Microelectronics Plan  
(J. P. Della Mussia; ELECTRONIQUE ACTUALITES, 29 Mar 85) . 19
- Briefs  
Siemens Raises Regensburg Investment ..... 25  
France's 'Puce' Program Progresses ..... 25

## SCIENTIFIC AND INDUSTRIAL POLICY

FRG, French, UK R&D Structures, Activities, Funding (UTLANDSRAPPORT, No 8501, Jan 85) .....	26
FRG: S&T, Industrial Development, by Hans Giertz	26
France: S&T, Industrial Development, by Olle Nordling	42
Great Britain: Technical R&D, by Dan Andree, Nils Starfelt	46
French 'Technohub' Club To Promote Scientific Cooperation (AFP SCIENCES, 28 Mar 85) .....	56

13 August 1985

## WEST EUROPE REPORT

### SCIENCE AND TECHNOLOGY

#### CONTENTS

##### AEROSPACE

Launchers, Satellites, Multinational Plans in 1985 CNES Budget (AFP SCIENCES, 28 Mar 85).....	1
Arianespace: Finances, Orders, Marketing Efforts (AFP SCIENCES, 6 Jun 85).....	11
France Woos Japanese Market for Launchers, Satellites (AFP SCIENCES, 6 Jun 85).....	13
Briefs SEP Shares Marketed	14

##### BIOTECHNOLOGY

Dutch Firm, University Plan Biotech Project To Compete With U.S. (Wubbo Tempel; NRC HANDELSBLAD, 29 Jun 85).....	15
New Genetic Engineering Lab To Be Set Up in Norway (Einar Kr. Holtet; AFTENPOSTEN, 18 Jun 85).....	17
Genes Cloned in Norway, Veterinary Applications (Einar Kr. Holtet; AFTENPOSTEN, 19 Jun 85).....	18

##### CIVIL AVIATION

MBB Studies Variable-Camber Wing for Airbus (MBB AKTUELL, Feb 85).....	20
French Program CHARME Develops Propfan Aircraft (AFP SCIENCES, 14 Mar 85).....	22
FRG Uses Laser for Non-Destructive Testing in Wind Canal (VDI NACHRICHTEN, 5 Apr 85).....	25

## COMPUTERS

Olivetti of Italy To Increase Share in U.S. Firm (COMPUTERWOCHE, 26 Apr 85).....	27
FRG To Use New Cyber 205 Supercomputer for Meteorology (H. Weiss; VDI NACHRICHTEN, 5 Apr 85).....	29

## FACTORY AUTOMATION

FRG Firm Has New Concept in Flexible Automation in Production (F. Gremm; VDI NACHRICHTEN, 19 Apr 85).....	32
BMFT of FRG To Fund Laser Technology Research (VDI NACHRICHTEN, 19 Apr 85).....	34

## METALLURGICAL INDUSTRIES

French Company Explores New Alloys, Powder Metallurgy (Pierre Kerlouegan; LE FIGARO, 3 Jun 85).....	35
--	----

## MICROELECTRONICS

Thomson Strategy Includes Increasing Gate-Array Market Share (ELEKTRONIK INDUSTRIE, No 4, 1985).....	37
---	----

## SCIENTIFIC AND INDUSTRIAL POLICY

FRG Mid-Level Firms Hurt by Riesenhuber's Budgeting Policies (INDUSTRIEMAGAZIN, 15 Mar 85).....	39
FRG Businesses Anxious About New Tax Regulations (INDUSTRIEMAGAZIN, 15 Mar 85).....	43
New British Policy Aims at Commercialization of Research (AFP SCIENCES, 23 May 85).....	46
Report Lays Out High-Tech Growth for Rheinland-Pfalz (FRANKFURTER ALLGEMEINE, 11 Jun 85).....	48
Europeans Move Toward Concerted Effort on Eureka Project (L'HUMANITE, 25 Jun 85; LE MONDE, 27 Jun 85).....	51
Matra, Norsk Data Agreement, by Julien Pierre	51
Electronics Giants Favorable, by Eric le Boucher	52
Netherlands Paper Perceives Pitfalls for Eureka Scheme (Editorial; DE VOLKSKRANT, 19 Jul 85).....	55
Briefs	
Swiss R&D Financing	57
EC Aid for FRG ESPRIT Programs	57
No Funds for SDI, Eureka	58

## TECHNOLOGY TRANSFER

Scientists at Dutch Universities Linked by Computers (PT AKTUEEL, 27 Mar 85).....	59
France Seeks Closer S&T Cooperation With Japan (AFP SCIENCES, 6 Jun 85).....	61
Briefs Austria-Japan Joint Venture	63

23 August 1985

## WEST EUROPE REPORT SCIENCE AND TECHNOLOGY

### CONTENTS

#### AEROSPACE

- Arianespace Commercial Director on Competition  
(Jean-Claude Biget Interview; ELSEVIERS WEEKBLAD,  
8 Jun 85) ..... 1

#### AUTOMOBILE INDUSTRY

- Fully Automated Fiat Engine Plant in Termoli  
(Johannes von Dohnanyi; DIE WELTWOCH, 13 Jun 85) ..... 4

#### BIOTECHNOLOGY

- New Novo Gene Splicing Plant in Denmark  
(BERLINGSKE TIDENDE, 12 Jul 85) ..... 7

#### CIVIL AVIATION

- Fokker Company Plans, Market Analysis  
(Pieter Graf; NRC HANDELSBLAD, 12 Jun 85) ..... 8

#### COMPUTERS

- European Activities in Optical Computer Development  
(WIRTSCHAFTSWOCH, 7 Jun 85) ..... 13
- Finnish Computer, Microchip R&D Survey  
(HELSINGIN SANOMAT, 18 Jun 85) ..... 16

#### FACTORY AUTOMATION

- FRG's Riesenhuber on Availability of Funds for Robot Users  
(Heinz Riesenhuber Interview; ROBOTER, Apr 85) ..... 17

## MICROELECTRONICS

Finland's Nokia Buys U.S. Firm's European Subsidiaries (Heikki Arola; HELSINGIN SANOMAT, 20 Jun 85) .....	20
--	----

## SCIENTIFIC AND INDUSTRIAL POLICY

Siemens Chairman Thinks Europeans Unduly Pessimistic (Bernhard Plettner Interview; INDUSTRIE, 19 Jun 85) .....	26
Philips Expects Little From SDI, Prefers Eureka Concept (Wubbo Tempel and Ben van der Velden; NRC HANDELSBLAD, 25 Jun 85) .....	31
FRG Begins To Crystallize Concept of Eureka (FRANKFURTER ALLGEMEINE ZEITUNG, 26 Jun 85) .....	34
Nordic Papers Assess Paris Eureka Project Parley (Editorial Report; 19 Jul 85) .....	36
FRG Government Forms Cabinet-Level High-Tech Committee (VDI NACHRICHTEN, 5 Apr 85) .....	38
FRG Official on National Aerospace Program (Martin Gruener Interview; WEHRTECHNIK, Jun 85) .....	40
Tax Breaks in Berlin for Constructing, Modernizing Buildings (H. Rieth; VDI NACHRICHTEN, 19 Apr 85) .....	50
Italian Proposals for Promoting Industrial Innovation (Cross-reference) .....	52
France: Three-Year Plan for Technological R&D (LIBERATION, 6 Jun 85; AFP SCIENCES, 6 Jun 85) .....	53
Plan Outlined	53
Ministers Approve	54

## TECHNOLOGY TRANSFER

Philips Placed at Disadvantage by U.S. High-Tech Export Laws (Ben van der Velden; NRC HANDELSBLAD, 4 Jul 85) .....	58
Philips Anticipates Large Increase in Chinese Sales (Dick Wittenberg; NRC HANDELSBLAD, 19 Jun 85) .....	61
Finland: High-Tech Industries Consider 'Technopolis' Concept (Jukka Ukkola; HELSINGIN SANOMAT, 20 Jun 85) .....	63
Briefs	
Fokker-Chinese Cooperation	70

4 September 1985

## WEST EUROPE REPORT

### SCIENCE AND TECHNOLOGY

#### CONTENTS

##### ADVANCED MATERIALS

- Pechiney Enters High-Tech Ceramics Field, Market Hopes  
(AFP SCIENCES, 13 Jun 85)..... 1

- French Firms in Joint Carbon-Composites Venture  
(Anne Salomon; LE FIGARO, 7 Jul 85)..... 2

##### AEROSPACE

###### Briefs

- New ESA Directorates Established 4  
'Air Cushions' for Ariane 4

##### COMPUTERS

- French AI Lab Studies Interpreting Application Languages  
(Mirel Schere; INDUSTRIES & TECHNIQUES, 10 Mar 85)..... 5

- FRG Research Association Funds at Work at Karlsruhe  
(VDI NACHRICHTEN, 12 Apr 85)..... 7

- Bull Introduces New Top-of-Line 32 Bit Computer  
(ELECTRONIQUE ACTUALITES, 31 May 85)..... 9

- Philips Markets Japanese Microcomputer  
(AFP SCIENCES, 20 Jun 85)..... 10

###### Briefs

- Supercomputer for Italy 11  
Joint European Software Research 11



## FACTORY AUTOMATION

RTM of Italy Applies Power Laser to Welding, Hardening (Andre Larane; INDUSTRIES & TECHNIQUES, 20 Mar 85).....	12
Briefs	
Italian Automated Factory Plan	16

## MICROELECTRONICS

Status of Microelectronics Plan in Austria (COMPUTERWOCHE, 12 Apr 85).....	17
France's LETI Prepares To Produce 4 Mbit Bubble Memory (ELECTRONIQUE ACTUALITES, 14 Jun 85).....	19
Thomson SC To Invest in New Production Facility (ELECTRONIQUE ACTUALITES, 21 Jun 85).....	21
Briefs	
FRG Microelectronics Program	22

## SCIENTIFIC AND INDUSTRIAL POLICY

French Foreign Minister Summarizes Eureka Progress (AFP SCIENCES, 27 Jun 85).....	23
France, FRG Agree on Definition of Eureka (AFP SCIENCES, 27 Jun 85).....	25
Preliminary Sketch of Eureka Executive Mechanism (AFP SCIENCES, 20 Jun 85).....	27
European Companies Favor Participation in Eureka (AFP SCIENCES, 20 Jun 85).....	29
Netherlands Commentary on Eureka Meeting in Paris (Wubbo Tempel; NRC HANDELSBLAD, 17 Jul 85).....	30
Europe's Four Largest Electronics Firms in Eureka (AFP SCIENCES, 27 Jun 85).....	35
Danes Propose Twelve Projects for Eureka (Kermit Norlund; BERLINGSKE TIDENDE, 19 Jul 85).....	37
Brite: List of Firms, Institutions, Projects by End of July (AFP SCIENCES, 13 Jun 85).....	39
FRG Research Network To Increase Access to Computers (Uli Deker; BILD DER WISSENSCHAFT, Apr 85).....	40

DM 28.2 Million for New Saarbruecken Technology Center (COMPUTERWOCHE, 29 Mar 85).....	49
Nixdorf Research Activities in Paderborn, Berlin (Herbrt F.W. Schramm; FRANKFURTER ZEITUNG/BLICK DURCH DIE WIRTSCHAFT, 28 Jun 85).....	50
Special FRG Commission Brings Technology to Political Arena (Josef Bugl Interview; VDI NACHRICHTEN, 12 Apr 85).....	52
Briefs	
Possible Japanese Eureka Participation	56
Eureka 'Super Robot' Contemplated	56
EEC Venture Capital Project	57

#### TECHNOLOGY TRANSFER

Discussions Held on Franco-Chinese Space Cooperation (AFP SCIENCES, 27 Jun 85).....	58
France-GDR: Three Industrial Cooperation Contracts (AFP SCIENCES, 13 Jun 85).....	60
Briefs	
Curien on Tech Transfer	61
Bulgarian-French Machine-Tools	61

5 September 1985

## WEST EUROPE REPORT

### SCIENCE AND TECHNOLOGY

#### CONTENTS

##### AEROSPACE

Canada Plans 1985-86 Aerospace Budget (AFP SCIENCES, 21 Mar 85) .....	1
FRG Aerospace Coordinator on Civil, Military, Funding Issues (Martin Gruener Interview; WEHRTECHNIK, Jun 85) .....	3
Netherlands Contribution to Columbus Project (D. de Hoop; ZENIT, Jun 85) .....	15
CNES Head Discusses Hermes, Ariane Programs (Frederic d'Allest Interview; LE SOIR, 18 Jul 85) .....	17
Briefs Aerospatiale Presents Hermes Simulator .....	20

##### AUTOMOBILE INDUSTRY

FIAT To Assemble Efficient Engine in Automated Plant (ATA INGEGNERIA AUTOMOTORISTICA, May 85) .....	21
Briefs French Future Vehicle Research .....	31

##### BIOTECHNOLOGY

EEC Funds New Biotechnology Research Program (AFP SCIENCES, 21 Mar 85) .....	32
---	----

##### COMPUTERS

Bull Forms Industrial Alliances With U.S., Japanese Firms (ELECTRONIQUE ACTUALITES, 7 Jun 85) .....	34
--	----

MATRA, Norsk Data To Develop Vectorial Computer (ELECTRONIQUE ACTUALITES, 28 Jun 85) .....	37
Bull of France Introduces Real-Time Scientific Minicomputer (AFP SCIENCES, 11 Apr 85) .....	39
Philips Enters Market for Signal Analysis Equipment (J. P. Baranes; ELECTRONIQUE ACTUALITES, 7 Jun 85) .....	41
Corporate Organization of Olivetti-France (MINIS ET MICROS, 15 Apr 85) .....	43
Oslo University, Norsk Data Next-Generation Computer Project (Jenny Lippestad; AFTENPOSTEN, 4 Jul 85) .....	46
France's Nationwide Computerization Plan Begins (AFP SCIENCES, 21 Mar, 4 Apr 85) .....	47
First Equipment Delivered	47
Plans for Computer Networks	48
Norsk Data: Continued Growth, More People, New Buildings (Ulf Peter Hellström; AFTENPOSTEN, 26 Jun 85) .....	50
Briefs	
Cray Computer to BP	52
Legal Protection for French Software	52

#### MICROELECTRONICS

Feb 1985 Status of 'PUCE' Program in France (INDUSTRIES & TECHNIQUES, 20 Apr 85) .....	53
SGS Strives To Be Primary European Supplier of Gate Arrays (F. Grosvalet; ELECTRONIQUE ACTUALITES, 7 Jun 85) .....	56
Siemens Gets Toshiba Megabit Technology in Patent Exchange (AFP SCIENCES, 18 Jul 85) .....	59
Briefs	
Philips, Kyocera in Joint Venture	60

#### SCIENTIFIC AND INDUSTRIAL POLICY

Report on Eureka Decisions at Paris Meeting (AFP SCIENCES, 18 Jul 85) .....	61
French Commentary on Eureka Project (Stephen Gere; L'UNITE, 5 Jul 85) .....	65

## TECHNOLOGY TRANSFER

### Briefs

Italtel 'Observers' to Silicon Valley	70
Ansaldo's Soviet Contract	70
Olivetti Co-Op Agreement With Soviets	70
FIAT Agreement With PRC	71
Philips-China Fiber Optics	71

19 September 1985

## WEST EUROPE REPORT

### SCIENCE AND TECHNOLOGY

#### CONTENTS

##### ADVANCED MATERIALS

- France's Pechiney Ready To Produce Aluminum-Lithium Alloy  
(AFP SCIENCES, 25 Apr 85)..... 1

##### AEROSPACE

- Matra Strategy Includes Selling Unprofitable Activities  
(AFP SCIENCES, 4 Jul 85)..... 3
- ESA Gets Four New Partners for Columbus Project  
(AFP SCIENCES, 4 Jul 85)..... 5
- Briefs  
French AEC, Matra Expand Project Plans..... 6

##### BIOTECHNOLOGY

- FRG's BMFT Makes Focused Effort in Biotechnology  
(WIRTSCHAFTSWOCHE, 21 Jun 85)..... 7
- New FRG Aid Program for Biotechnology Industry  
(HANDELSBLATT, 12 Jul 85)..... 11
- Briefs  
Biogen, Sumimoto Pharmaceutical Agreement..... 13

##### CIVIL AVIATION

- Business Booming Again for Netherlands' Fokker  
(NRC HANDELSBLAD, 1 Aug 85)..... 14

## FACTORY AUTOMATION

BMW Organizes Materials Flow on 'Just in Time' Principle (INDUSTRIEMAGAZIN, Jul 85).....	16
European Robotics Displayed in Hannover Fair (Guy Denuit; INDUSTRIE MAGAZINE, Jun 85).....	21

## MICROELECTRONICS

Thomson, GEC, Philips, Siemens in Joint Eureka Project (ELECTRONIQUE ACTUALITES, 28 Jun 85).....	23
France's Riber Wants To Show its Vitality (J.P. Baranes; ELECTRONIQUE ACTUALITES, 7 Jul 85).....	25
FRG Turns Efforts to Laser Development (Klaus Gertoberens; SUEDEUTSCHE ZEITUNG, 17 Jul 85).....	27
Briefs	
French High-Performance IC R&D	29
Matra Harris, SGS Develop IC Assembly	29

## SCIENTIFIC AND INDUSTRIAL POLICY

Most Austrians Take Wait-and-See Position on Eureka (Hedi Cech; DIE PRESSE, 12 Jul 85).....	30
Bonn Sets Criteria for Eureka Participation (HANDELSBLATT, 26 Jun 85).....	33
Milan Summit on Eureka, French Proposals (AFP SCIENCES, 4 Jul 85).....	35
FRG Research Funds Reshuffled To Meet Current Needs (WIRTSCHAFTSWOCHE, 5 Jul 85).....	41
France Proposes 3 Percent of GDP for R&D by 1990 (L'EXPRESS, 21-27 Jun 85).....	44
Commentary on Thomson, French Industrial Policy (NEUE ZUERCHER ZEITUNG, 31 Jul 85).....	47
Fuji, Thomson To Develop, Produce High-Powered Transistors (P. De Vittor; ELETTRONICA OGGI, May 85).....	53
Italian R&D Effort Summarized (Salvatore Moscardiello; NOTIZIARIO DELL'ENEA, Feb 85).....	58
Briefs	
French R&D Budget	68

## TECHNOLOGY TRANSFER

Netherlands Firm Claims Too Much Red Tape in COCOM Rules (Zeger Luyendijk; NRC HANDELSBLAD, 3 Aug 85).....	69
---	----

30 September 1985

## WEST EUROPE REPORT SCIENCE AND TECHNOLOGY

### CONTENTS

#### ADVANCED MATERIALS

Recent Advances in Composite Materials Reviewed (Laurent Schwartz; INDUSTRIES & TECHNIQUES, 10 Apr 85) ...	1
European Efforts in Ceramics R&D Described as Scattered (Martine Castelle, et al.; INDUSTRIES & TECHNIQUES, 1 Apr 85) .....	3
FRG: New Plant for Production of Carbon Fibers (EUROPA CHEMIE, 24 Apr 85) .....	5

#### AUTOMOBILE INDUSTRY

New Materials to Lighten Vehicles (M. Castagna; INGEGNERIA AUTOMOTORISTICA, Mar 85) .....	6
Direct Injection Diesel Motor (R. Margary; INGEGNERIA AUTOMOTORISTICA, Mar 85) .....	18

#### BIOTECHNOLOGY

Bacteria Produce 'Biopol' Polyester at UK's ICI (FRANKFURTER ZEITUNG/BLICK DURCH DIE WIRTSCHAFT, 25 Jul 85)	30
FRG Five-Year Program To Fund Biology, Biotechnology R&D (FRANKFURTER ALLGEMEINE ZEITUNG, 14 Aug 85) .....	32
EEC Program To Promote Biotech Research, Application (EUROPA CHEMIE, 16 Apr 85) .....	33

#### COMPUTERS

Delft University Builds Parallel-Processor Computer (Willem Kraan; ELSEVIERS WEEKBLAD, 13 Jul 85) .....	34
--	----



Briefs		
ESPRIT Projects		37
FACTORY AUTOMATION		
Italian Robot Manufacturer Enters Spanish Market		
(REVISTA DE ROBOTICA, May-Jun 85) .....		38
French High-Speed Machining Equipment Uses Magnetic Bearings		
(FRANKFURTER ZEITUNG/BLICK DURCH DIE WIRTSCHAFT, 8 Aug 85)		42
MICROELECTRONICS		
Philips Head on Strategy To Meet Japanese Competition		
(Wisse Dekker Interview; DE TELEGRAAF, 13 Jul 85) .....		43
SCIENTIFIC AND INDUSTRIAL POLICY		
Davignon, Tindemans Comment on Eureka Program		
(Etienne Davignon, Leo Tindemans Interview; LA LIBRE		
BELGIQUE, 17 Jul 85) .....		48
Netherlands Launches Information Technology Program		
(NRC HANDELSBLAD, 8 Aug 85) .....		55
SGS-ATES Expands Overseas		
(ELETTRONICA OGGI, Jul-Aug 85) .....		57
Olivetti's Net Assets Up 65 Percent		
(ELETTRONICA OGGI, Jul-Aug 85) .....		58
Briefs		
Selenia's Profits Up 37 Percent		59
TECHNOLOGY TRANSFER		
Article Details Gray Market in High-Tech Military Equipment		
(DER SPIEGEL, 5 Aug 85) .....		60
Article Discusses Technology Diversions Through Switzerland		
(Andreas Flutsch; DIE WELTWOCH, 8 Aug 85) .....		67

28 October 1985

# WEST EUROPE REPORT

## SCIENCE AND TECHNOLOGY

### CONTENTS

#### AEROSPACE

Budget of France's CNES Decreases Slightly for 1985 (ELECTRONIQUE ACTUALITES, 19 Apr 85).....	1
Aerospatiale of France Creates Group for Strategy Planning (AFP SCIENCES, 19 Sep 85).....	4
France's SAGEM Builds Bubble Memory for Eureka Platform (ZERO UN INFORMATIQUE HEBDO, 23 Sep 85).....	6
Briefs Austria's Participation in Hermes	7

#### AUTOMOBILE INDUSTRY

Newest Pirelli Tires Improve Performance (L'INDUSTRIA DELLA GOMMA, May 85).....	8
--	---

#### BIOTECHNOLOGY

Elf Research Center in Labège, France, Stresses Products (BIOFUTUR, Jun 85).....	11
---	----

#### CIVIL AVIATION

FRG's Dornier Develops High-Resolution Display System (Hans-Peter Engelhardt; DORNIER POST, No 4, 1984).....	17
---	----

#### COMPUTERS

Ericsson Computers Records Losses, U.S. Market Failure (Nina Sallnas; SVENSKA DAGBLADET, 3 Aug 85).....	21
--	----

Cray-2 Supercomputer for Stuttgart University (FRANKFURTER ALLGEMEINE ZEITUNG, 21 Aug 85).....	23
ERRATUM: Finnish Computer, Microchip R & D Survey (Heikki Arola; HELSINGIN SANOMAT, 18 Jun 85).....	24
FACTORY AUTOMATION	
FMS Activity Expected To Increase in Europe (AUTOMAZIONE INTEGRATA, Jun 85).....	30
Italian Robots Automate Fiat, Alfa Romeo Assembly Lines (MACCHINE, Jun 85).....	32
MICROELECTRONICS	
Thomson, CNET of France in Silicon-on-Insulator Research (J. P. Della Mussia; ELECTRONIQUE ACTUALITES, 8 Mar 85)....	34
Excimer Laser Produces .2 Micron Semiconductor Structures (CHEMISCHE RUNDSCHAU, 31 May 85).....	37
Philips Develops MBS Process for Laser, Chip Manufacture (FRANKFURTER ZEITUNG/BLICK DURCH DIE WIRTSCHAFT, 6 Aug 85).....	38
Thomson Semiconductors Introduces Products, Balances Books (Roger Carrasco; MINIS ET MICROS, 23 Sep 85).....	40
ERRATUM: Finland's Nokia Buys U.S. Firm's European Subsidiaries (HELSINGIN SANOMAT, 20 Jun 85).....	43
SCIENTIFIC AND INDUSTRIAL POLICY	
Montedison Returns to Profitability (COMUNICAZIONE MONTEDISON, May 85).....	44
Winning Its Race for Profits	44
1984 Sales to China Doubled	45
Eureka Official on Hopes, Aims for Program (LE MONDE DIPLOMATIQUE, Aug 85).....	48
Europe's Strengths, Weaknesses in Eureka Technologies (Andre-Yves Portnoff, et al.; LE MONDE DIPLOMATIQUE, Aug 85).....	54
French Civil Research Budget 1986-1989 Increases (AFP SCIENCES, 19 Sep 85).....	67
Briefs	
French Firms Interested in Eureka	69
French Technology Update Loans	69

8 November 1985

## WEST EUROPE REPORT

### SCIENCE AND TECHNOLOGY

#### CONTENTS

##### ADVANCED MATERIALS

- French Pechiney's Ceramic Strategy  
(Philippe Lanone; L'USINE NOUVELLE, 20 Jun 85) ..... 1

##### AUTOMOBILE INDUSTRY

- Peugeot's Poissy Plant Modernization Described  
(Jean-Paul Le Guern; L'USINE NOUVELLE, 19 Apr 85) ..... 3
- Revolutionary Netherlands Gear Firm Faces Lawsuit Threats  
(ANP NEWS BULLETIN, various dates) ..... 6
- Ford, Fuji Named ..... 6
- Fiat Named, Ford Disclaims ..... 7
- Reprieve Won ..... 7

##### BIOTECHNOLOGY

- Briefs  
French INRA, CEA Sign Accord ..... 9

##### CIVIL AVIATION

- Certification Granted to Franco-Italian ATR 42  
(REVUE AEROSPATIALE, Oct 85) ..... 10
- ATR 42 Production Work in French, Italian Plants Detailed  
(REVUE AEROSPATIALE, Oct 85) ..... 14

##### COMPUTERS

- French Integrate Computers Into School System  
(AFP SCIENCES, 5 Sep 85) ..... 20
- EC Investment in Optical Computer Research  
(AFP SCIENCES, 12 Sep 85) ..... 21

## MICROELECTRONICS

Timo Koski, Head of Finland Nokia Firm Profiled (Martti O. Hosia; SUOMEN KUVALEHTI, 27 Jan 85) .....	22
New Digital Circuits at Thomson Semiconductor in France (JP Della Mussia; ELECTRONIQUE ACTUALITES, 15 Mar 85) ...	27
CNET of France Uses Organo-Metallic Epitaxy for Laser (ELECTRONIQUE ACTUALITES, 22 Mar 85) .....	30
LEP of France Achieves Low-Energy Consuming SRAM (ELECTRONIQUE ACTUALITES, 13 Sep 85) .....	32
Thomson Announces Standard Gallium Arsenide IC's (ELECTRONIQUE ACTUALITES, 27 Sep 85) .....	33
European Silicon Structures Plans Custom Chips in 15 Days (J.P. Della Mussia; ELECTRONIQUE ACTUALITES, 6 Sep 85) ..	35
<b>Briefs</b>	
Sweden Joins ES2 Project	39
New Chief at Matra Data Systems	39
French Research Center in China	40
Thomson 1985 Growth Strategy	40
Japanese IC Technology to France	40
Netherlands Technology Center	41

## SCIENTIFIC AND INDUSTRIAL POLICY

Report on French Proposals, Funding for Eureka (ELECTRONIQUE ACTUALITES, 6 Sep 85) .....	42
<b>Briefs</b>	
CESTA on Eureka Project	45

22 November 1985

## WEST EUROPE REPORT SCIENCE AND TECHNOLOGY

### CONTENTS

#### ADVANCED MATERIALS

##### Briefs

Mainz Polymer Research Institute	1
----------------------------------	---

#### AUTOMOBILE INDUSTRY

Besse Takes Steps To Improve Finances at France's Renault (G. Kacher; VDI NACHRICHTEN, 28 Jun 85).....	2
---	---

#### COMPUTERS

ECRC Products Could Be Available in Three Years (Marel; ELECTRONIQUE ACTUALITES, 4 Oct 85).....	5
--	---

Bull Continues Reorganization Begun in 1983 (ELECTRONIQUE ACTUALITES, 11 Oct 85).....	8
--	---

#### FACTORY AUTOMATION

Highlights of Sixth EMO Machine-Tool Show (H. Pradenc; ELECTRONIQUE ACTUALITES, 4 Oct 85).....	10
---	----

#### MICROELECTRONICS

##### Briefs

Fraunhofer Institute for Microelectronics	13
---	----

#### SCIENTIFIC AND INDUSTRIAL POLICY

Areas of Eureka Research by Product, Firm, Country (Claudine Meyer; L'USINE NOUVELLE, 1-8 Aug 85).....	14
---	----

French Minister Presents 1986 Research Budget (AFP SCIENCES, 26 Sep 85).....	21
Detailed Breakdown of FRG 1986 R&D Budget (FRANKFURTER ZEITUNG/BLICK DURCH DIE WIRTSCHAFT, 12 Sep 85).....	30
Smaller Firms Acquire Capital More Easily With FRG Draft Law (R. Sietmann; VDI NACHRICHTEN, 3 May 85).....	34
Briefs Danish Interest in Eureka	37

#### TECHNOLOGY TRANSFER

French-Soviet Cooperation in Space Ventures Detailed (AFP SCIENCES, 26 Sep 85).....	38
Proposals for French-Japanese S&T Cooperation (AFP SCIENCES, 5 Sep 85).....	44
French CNET Endeavors To Transfer Technology to Industry (Marel; ELECTRONIQUE ACTUALITES, 4 Oct 85).....	46

6 December 1985

## WEST EUROPE REPORT

### SCIENCE AND TECHNOLOGY

#### CONTENTS

##### ADVANCED MATERIALS

Netherlands Advances in Artificial Super Fibers (Hans Friedeman; DE VOLKSKRANT, 5 Oct 85) .....	1
Minister Announces FRG Materials Research Program (FRANKFURTER ALLGEMEINE ZEITUNG, 12 Oct 85) .....	4
Briefs	
Ceramics Research for Turbines .....	5
Carbone-Industrie Created .....	5

##### AEROSPACE

MBB, Aeritalia Found Venture To Promote Commercial Space (FRANKFURTER ALLGEMEINE ZEITUNG, 30 Sep 85) .....	6
ESA To Admit Finland as Member (HELSINGIN SANOMAT, 26 Oct 85) .....	7
Suspected Finland Technology Leak Holds Up ESA Application (Stefan Lundberg; DAGENS NYHETER, 31 Oct 85) .....	9

##### BIOTECHNOLOGY

Details on Biotech Projects Developed for Eureka (BIO LA LETTRE DES BIOTECHNOLOGIES, July-Aug 85) .....	10
Austria Funds Biotech, Genetic Engineering Research (EUROPA CHEMIE, 9 Jul 85) .....	13
Netherlands Finds Successful Application of 'Membrane Reactor' (Wubbo Tempel; NRC HANDELSBLAD, 21 Sep 85) .....	15
Thomae of FRG To Begin Producing Genetically Engineered Drugs (SUEDEUTSCHE ZEITUNG, 28 Aug 85) .....	18



FRG To Invest DM 1 Billion for Biotech R&D Through 1989 (CHEMISCHE INDUSTRIE, Sep 85) .....	20
Briefs	
Canadian Biotechnology Research Institute	24
Canadian Biotechnology Subsidies	24
Danish Synthetic Growth Hormone	25
FRG Scientists Against Genetic Research	25
CIVIL AVIATION	
Airbus Industrie Sales Hampered by U.S. Technology Embargoes (TAGESSPIEGEL, 1 Sep 85) .....	26
Summary of New Technologies on Airbus A-320 (FRANKFURTER ZEITUNG/BLICK DURCH DIE WIRTSCHAFT, 2 Sep 85)	28
Problems With Engine for New Fokker 100's (DE TELEGRAAF, 15 Aug 85) .....	31
Progress Report on New Fokker Aircraft Models (DE TELEGRAAF, 16 Aug 85) .....	33
COMPUTERS	
French Marisis Computer To Have 200 MFlops Power by Late 1980's (ZERO UN INFORMATIQUE HEBDO, 29 Apr 85) .....	34
Defense Ministry Financing	34
Isis Integrates Current Technology	36
Siemens Sells Japanese-Built 'Most Powerful' Computer (PRODUKTION, 11 Jul 85) .....	39
Norsk Data Vice President on Company Philosophy, Strategy (Zeger Luyendijk; NRC HANDELSBLAD, 6 Sep 85) .....	40
Ericsson Information Systems Cuts Personnel, Expects Loss (Bjarne Stenquist; DAGENS NYHETER, 4 Oct 85) .....	42
Briefs	
DM 6 Million for Berlin Membrane Research	44
Eureka 64-MB Chip	44
EC Optical Computer Funds	45
MICROELECTRONICS	
Siemens Purchase of Toshiba 1-Megabit Technology Discussed (Wubbo Tempel; NRC HANDELSBLAD, 4 Oct 85) .....	46

Commentary on Siemens-Philips Megabit Project (Broer Scholtens; DE VOLKSKRANT, 5 Oct 85) .....	49
Grenoble Synchrotron in 1987 (VDI NACHRICHTEN, 28 Jun 85) .....	52
Gallium Arsenide Research at Philips, LEP (TECHNISCHE RUNDSCHAU, 30 Apr 85) .....	53
Briefs	
IC Design Project	55
Austrian CAD/CAM Institute	55

#### SCIENTIFIC AND INDUSTRIAL POLICY

Swedish Firms ASEA, Volvo, Ericsson Interested in Eureka (Hans Henrik Ronnow; NY TEKNIK, 25 Jul 85) .....	57
Sweden Plans Eureka Projects, Comments on Hannover Meeting (DAGENS NYHETER, various dates) .....	59
Government Wants To Participate, by Mats Holmberg	59
Two Projects Suggested, by Mats Holmberg	60
Editorial Views Meeting, Editorial	61
Portuguese Meet To Determine Eureka Participants (DIARIO DE NOTICIAS, 13 Oct 85) .....	63
First Concrete Results of Esprit Reported (F. Grosvalet; ELECTRONIQUE ACTUALITES, 4 Oct 85) .....	65
Review of Some Current Esprit Projects, Participants (F. Grosvalet; ELECTRONIQUE ACTUALITES, 4 Oct 85) .....	68
Main Areas of High Tech R&D Spending for Austria 1984-85 (E. Barth von Wehrenalp; HANDELSBLATT, 28 Aug 85) .....	71
FRG Firms Again Investing More in R&D as Long-Range Policy (INDUSTRIEMAGAZIN, Sep 85) .....	79

#### TECHNOLOGY TRANSFER

Greek Opposition View on Transfer of Military Technology (K. Kolmer; MESIMVRINI, 2 Oct 85) .....	86
Briefs	
Finnish Computer Export to USSR	89

30 December 1985

## WEST EUROPE REPORT

### SCIENCE AND TECHNOLOGY

#### CONTENTS

##### ADVANCED MATERIALS

###### Briefs

Swedish Fiber Composites Project	1
----------------------------------	---

##### AEROSPACE

Second Ariane Launch Pad Ready at Kourou (AFP SCIENCES, 14 Aug 85) .....	2
---	---

Hermes Project Ninety Percent Financed (ELECTRONIQUE ACTUALITES, 11 Oct 85) .....	4
--	---

##### BIOTECHNOLOGY

More Private Capital Sought for FRG Biotech Start-Ups (CHEMISCHE RUNDSCHAU, 20 Sep 85) .....	7
---	---

Italy To Coordinate, Subsidize Its Biotech Efforts (Dieter Rohe; CHEMISCHE INDUSTRIE, Oct 85) .....	8
--	---

##### CIVIL AVIATION

Study Begins for Third New Fokker Aircraft (DE TELEGRAAF, 27 Sep 85) .....	13
---	----

###### Briefs

Belgian Airbus Participation	15
------------------------------	----

##### FACTORY AUTOMATION

Report on French Program for Production Automation (H. Pradenc; ELECTRONIQUE ACTUALITES, 6 Sep 85) .....	16
---	----

NC Machine Tools in Italy: 1984 Supply, Demand (AUTOMAZIONE INTEGRATA, Apr 85) .....	19
---	----

## MICROELECTRONICS

Siemens Hires Scientists, Joins Toshiba on 1 Megabit Memory (VDI NACHRICHTEN, 19 Jul 85) .....	34
Ericsson of Sweden Now 52 Percent Foreign-Owned (Jan Wifstrand; DAGENS NYHETER, 18 Oct 85) .....	36

## SCIENTIFIC AND INDUSTRIAL POLICY

Finland's Nokia, France's Bull in Eureka Project (UUSI SUOMI, 25 Oct 85) .....	38
Netherlands Participation in Esprit, Eureka, SDI (NRC HANDELSBLAD, 20 Sep 85) .....	39
FRG Funds Eureka in 1986, Sets Terms for Further Financing (FRANKFURTER ALLGEMEINE ZEITUNG, 2 Sep 85) .....	41
Criteria for Funding Technology-Oriented Firms in FRG (F. Brandi; VDI NACHRICHTEN, 19 Jul 85) .....	43
Role of FRG Banks in Promoting Start-Ups, Venture Capital (Ludwig Trippen; FRANKFURTER ZEITUNG/BLICK DURCH DIE WIRTSCHAFT, 30 Sep 85) .....	47
FRG Studies Status of, Prospects for Technology Parks (FRANKFURTER ZEITUNG/BLICK DURCH DIE WIRTSCHAFT, 22 Aug 85)	56
Industrial Park Built Near Dortmund University in FRG (Hans Juergensen; FRANKFURTER ALLGEMEINE ZEITUNG, 3 Sep 85)	60
Overview of Swedish Venture Capital Market (Rolf Wolff; FRANKFURTER ZEITUNG/BLICK DURCH DIE WIRTSCHAFT, 6 Sep 85) .....	62
Details on Sweden's Largest Venture Capital Firm (Peder Carlquist, Jan Wifstrand; DAGENS NYHETER, 4 Nov 85)	70
Ninety-Five New Esprit Projects Financed in 1985 (AFP SCIENCES, 26 Sep 85) .....	73
Update on European Esprit Program Progress (F. Grosvalet; ELECTRONIQUE ACTUALITES, 27 Sep 85) .....	74
Briefs	
FRG Funds to Eureka	75
Peking Interested in Eureka	75
Italy in 12 Esprit Projects	76
Spain Prefers Eureka to SDI	76

TECHNOLOGY TRANSFER

Pirelli Opens New Headquarters in Moscow (FATTI E NOTIZIE, Jun 85) .....	77
---	----

**END OF**

**FICHE**

**DATE FILMED**

29 January 1986

